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Textile World

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What to Do?

CONFUSION is the keynote of the hour. There undoubtedly have been times in our history when it was at least as difficult to see clearly ahead—but they are not of recent enough memory to be used as a solace.

In the midst of this confusion, we seem to be divided into three groups: One believes this is just another depression. Another sees "capitalism on trial," and an entirely new social order around the corner. The third —and by far the largest—thinks in neither of these terms. It is merely groping around for some light which will guide its actions for the next six months or year. It includes the worker, who is wondering about his job, if any; the employer, who is trying to chart his business, if any; the farmer, who probably is thinking mostly in terms of food—again if any.

We are, of course, primarily interested in the textile manufacturer. How can he plan ahead with any assurance; what attitude should he take for the future?

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He is immersed in the confusion which has become our national atmosphere. With utter disregard for order of importance, we jot down below some of the components of that confusion:

Talk of a "dole" . . . Income tax rates which will gradually approach England's . . . Cashing veterans' certificates . . . Cancellation of war debts . . . Removal of all tariff barriers . . . Artificial control of raw material production . . . Federal and municipal public works programs . . . Feeding the unemployed . . . Permanent four-day week . . . The Farm Board . . . A still lower level of wages . . . Cause and effect of the crime wave . . . Save the country with beer . . . Disarmament . . . New international antagonisms in the making . . . A union reducing wages to "stabilize" an industry . . . Federal guarantee of bank deposits . . . Repeal the anti-trust laws . . . And so forth, almost ad infinitum.

Is it surprising that all this, whether talk or fact, makes the man-in-the-street a little sick? A fellow-editor summed it up by telling us an old story. He reminded us of the drunk who fell asleep in a prehistoric bar-room; a wag rubbed limburger cheese on the drunk's upper lip; on awakening, the latter tried unsuccessfully to learn from the bar-tender what had died, and finally left; after an hour or so, he returned and said: "I've been all around town, and it's the same everywhere. *The whole world smells!*"

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Again, what is a textile manufacturer to do? Must he arm himself for "capitalism's last stand"? Must he prepare for the "new social order"? Or shall he forget all this—leave it to the politicians—and merely try to worry along for another winter?

Naturally, we have no unequivocal answer. Instead, we have two thoughts—neither new nor apparently compatible.

One is obvious: The manufacturer who permits himself to become so muddled and so desperate as a result of this confusion that he cannot continue to do his own job in his own plant to the best of his ability, is in for a bad winter.

The other is less obvious: The manufacturer who, while doing his job, does not attempt to "think through" this confusion with an absolutely open mind, may be due for a rude awakening.

There are worse things in the world than confusion, in itself. But there is nothing worse than confusion which paralyzes rather than stimulates.

The Week in Textiles

as Reflected in This Issue

General

Merchandising Course

A course in merchandising has been laid out by the Lowell Textile School faculty to start this fall which is designed to improve students' knowledge of distribution problems and to develop sales-engineer personnel. *(page 29)*

Waste Disposal

Up-to-date methods employed in various branches of the textile industry for disposing of wastes are discussed. This subject is becoming of increasing importance, and worth-while economies are often effected by careful attention to the disposal and recovery of these processing wastes. *(page 34)*

Heddle for Novelty Yarn

In order to facilitate the weaving of fabrics containing novelty yarns of the irregular diameter type, a special heddle having an over-sized eye has been designed. *(page 46)*

Slasher Bearings

New bearings, permitting adjustment to counteract wear, have been designed to support slasher size-rolls. *(page 46)*

Roving Traverse

Announcement is made of the development of an improved type of roving traverse-motion to be applied to spinning frames. This design is said to prevent any appreciable dwell of the roving at end of traverse. *(page 46)*

Cotton Again at Bottom

Cotton failed to hold a 40-point rally and at mid-week settled back to about the lowest prices of the movement. Demand is uncertain and of course hinges largely on the trend of manufactured products. *(page 55)*

Spot Yarns Only

Yarn sellers find that current demand is limited wholly to spot or nearby deliveries. Users apparently have scant stocks which need replenishment but they are unwilling to order ahead. Prices paid are at rock bottom and buyers even haggle about these. *(page 55)*

Cotton

Adjusting the Cotton Mule

Details covering proper adjustment of the cotton mule are important in efficient operation of the machine. An authority on this subject covers the ground thoroughly in concise form making a useful piece of reference material for the spinning room. *(page 26)*

Cork Roll Study

The results of recent tests conducted on cork spinning rolls, together with opinions advanced by practical men, lead to interesting conclusions in regard to their relative merits as compared with leather rolls. *(page 36)*

Good Statistical Position

The statistical position of cotton goods actually improved during a dull August. Stock of gray goods were lower at the end of the month than at the start due to excess of deliveries over production. *(page 39)*

Cottons Seek Confidence

Cotton goods sellers are making every effort to instill confidence in buyers. One house in pricing tickings states that it will withdraw the goods rather than sell at a lower figure. Gray goods move slowly at the lowest prices yet after a brief flurry when the reduction was made late last week. *(page 59)*

Farm Board Cotton

A plan for a fixed policy by the Federal Farm Board in disposing of 2,000,000 bales of cotton has been made public by Senator Hastings. *(page 67)*

Wool

Worsted Yarn Production

Another installment in the series prepared by the University of Pennsylvania as a result of its survey of the worsted spinning industry gives production figures for 1929 and 1930 with interesting conclusions on relations between sales yarn and mill yarn. *(page 24)*

National Wool Week

Plans and purposes for the promotion of National Wool Week have been announced from the headquarters of the movement. They disclose a broad scope and a program which the industry may support with enthusiasm. *(page 38)*

Worsted Yarns Steady

Worsted yarns remain steady with buyers not easily dislodged from their position of buying only for nearby needs. Efforts to cheapen their products are uppermost. *(page 55)*

Wools Are Quiet

The wool market is quiet with pressure from buyers for concessions. Sellers are firm and feel confident in values but reductions in fabric prices seem to be made in anticipation of lower raw material. *(page 57)*

Worsted Stocks Growing

Cancellation of many orders and lighter buying has made for some ac-

The Textile Outlook

LACK of confidence among buyers has come to be recognized as one of the most important of the current barriers to a broader business in textiles. Of course it sums up all the minor difficulties and depicts their mass effect. Merely low prices will not move goods at present. What is needed is belief that prices will not soon go lower. What the buyer needs is some form of price guarantee, either actual or in equivalent mental attitude. Perhaps the buyer is right and lower prices may develop—at least he cannot be wholly blamed for placing his commitments to best advantage as he sees it. If enough consumers of goods could be made to see it differently, a steady market could be built up all along the line. Changing the attitude of buyers is the industry's major job at the moment on the market end. One house has stated flatly that it will not sell a certain line of goods for less than recently named prices; rather it will withdraw them. Rayon manufacturers give their customers price protection. In these, and other ways yet untried, the buyer can be given definite knowledge that goods are at bottom for a two, three or four-month period. Then watch him go!

cumulation of worsted suiting stocks and curtailment is advised. *(page 59)*

Knit

Hosiery Wage Cut Problem

Agreement between full-fashioned hosiery union and unionized manufacturers to cut wages and prices has created a serious situation and has virtually divided the inquiry into two armed camps. *(page 28)*

Adjusting Full-Fashioned Machine

A continuation of the full-fashioned hosiery machine series deals with the functions of the sinkers and knock-over bits in the forming of one course of loops. The detailed discussion includes many valuable suggestions for adjusting the machine so that all parts will perform their respective functions in the proper manner. *(page 30)*

Securing Evenness

A single end of 12 threads will result in a more even fabric than two ends of six threads each. *(page 49)*

1932 Swimsuit Prices 3 - 8% Down

Such mills as have shown their new swimsuits for 1932 are quoting prices 3 to 8% below last year. Buyers view lines interestingly but are backward in contracting. *(page 61)*

Winter Underwear Sold Ahead

Mills are sold 4 to 5 weeks ahead on their winter underwear lines and distributors are pressing their sources for shipment. Stocks in distributors' hands are light. *(page 61)*

Silk

Silk Still Weak

Silk prices are likely to be held down and further weakness develop states Dr. L. H. Haney in this week's TEXTILE WORLD Analyst. He says the general depression, style uncertainty and cheap cotton and rayon are likely to outweigh the seasonal improvement in fabrics and the firmer attitude on surplus silk in Japan. *(page 51)*

Raw Silk 10c. Off

Weakness in Japan brought a 10c. drop in raw silk prices which stimulated spot buying in New York. Broadsilk mills cover for spot but hold off on futures expecting declines. *(page 57)*

Silk Yarns Quiet

Demand for spun and thrown yarns is at a low ebb. Tie silk firms are sole group placing business with throwsters and their total demand is small. *(page 57)*

Broadsilks Active

Broadsilk movement improved quickly after Labor Day and all the popular fall fabrics now are in good call, especially crepe-back satins and cantons. *(page 59)*

New Spring and Summer Cottons Shown

GARMENT manufacturers, retail buyers and stylists attended the fourth annual Trade Conference and Manikin Parade held Thursday in New York under the auspices of the Cotton-Textile Institute as a combined showing of the new cottons for spring and summer, 1932. Cooperating in the presentation were the National Association of Cotton Dress Manufacturers, and for the first time the Associated Dress Industries of America and the United Women's Wear League.

An interesting collection of representative fabrics for the new season, especially designed for the manufacturers of popular-priced garments, was presented in more than 80 models shown by 15 fabric manufacturers and converters.

The particular emphasis given to the pajama mode today indicates that a continuing popularity is expected for this type of garment next season.

Miss Susan Bates, trade counselor of the Cotton-Textile Institute was director of the manikin parade and described briefly each model shown. The firms exhibiting in the conference were: M. C. D. Borden & Sons, Brand & Oppenheimer, James H. Dunham & Co., N. Fluegelman & Co., Inc., Galey & Lord, Henry Glass & Co., M. Greene & Co., Hesslein & Co., Inc., M. Lowenstein & Sons, Mahler Textiles, Inc., Minot Hooper & Co., Nashua Mfg. Co., Pacific Mills, Pepperell Mfg. Co., and Phoenix Mfg. Co.

Further details will be published in next week's issue.

Rayon

Problems in Acetate Dyeing

When steps are taken to insure even dyeing on this type of stock, difficulty is often encountered in the form of matted skeins. A good formula which will give even dyeing, and, at the same time, lessen the tendency for matting is supplied. *(page 49)*

Trade Approves Acetate Cut

Reaction to cut in acetate yarn prices has been favorable; it is viewed as making for stability. Market demand has slackened. *(page 57)*

Processing

Corrosion-Resistant Equipment

Announcement is made of the development of an acid-proof ceramic equipment designed specifically for use in textile mills. The essential features of this material are its ability to withstand severe thermal shock and its immunity to corrosive substances. *(page 46)*

Finishing Crepe-Back Satins

Detailed information of practical value is supplied as to the types of machines and methods employed in finishing acetate crepe-back satins. The resultant fabric is soft and drapy and has the desired handle. *(page 48)*

Mild Bleach for Wool Yarns

Methods of securing the best white on woolen knitting yarns, while at the same time retaining a fluffy finish, should be of interest to all manufacturers dealing with such material. Two different bleaching formulas are discussed, and it is pointed out that the milder of the two will produce the whiter yarn, and will effect a fluffier finish. *(page 48)*

The Business Outlook

BUSINESS has had almost as consistently bad breaks from nature and the calendar as it has from statesmen during the last two years. Unseasonally hot weather and a late Labor Day have apparently helped make hopes of any pronounced fall upturn fade as we pass the middle of September with no signs of seasonal stimulation in any important line. Our index continues to slide off to lower levels with steel demand and electric power production stagnant, and a steady slackening in freight movement and money turnover as measured by check payments. Building contracts and coal output alone give faint signs of response to seasonal influences. The continued climb of currency outstanding points to an increasingly acute crisis of confidence intensified by the steady weakening of security markets. The comparative steadiness of commodity averages is encouraging but conceals a still unstable price situation. The European picture likewise is superficially reassuring but the essential issues are still submerged. Persistent inaction in official and financial circles in face of continued uncontrolled deflation becomes increasingly alarming to those who understand its sinister significance.—*The Business Week.*

Worsted Yarn Production *in 1929 and 1930*

As Surveyed by University of Pennsylvania

As the second report in a series detailing the results of the 1931 inventory, the present release deals with worsted yarn production in 1929 and 1930. The work has been done by the Industrial Research Department of the Wharton School of Finance and Commerce. In Report Number 1 (published in TEXTILE WORLD, *Aug. 29, 1931) attention was called to the need for factual information on demand as well as capacity. It was, in part, to keep in touch with demand changes that a section on worsted yarn production was included in the inventory. While production is not synonymous with demand, it does eventually reflect trend of demand. Production figures are far more accessible than are demand data.*

In the following report, figures are presented on total worsted yarn production according to kind, and whether for sale or own consumption, in 1929 and 1930. A release to be issued later in the fall will bring up-to-date the Industrial Research Department's study of worsted sales yarn production published late in 1929. Post-war trends in the production of worsted weaving and knitting sales yarns will also be traced in that report.

IN the spring of 1928, and again in the spring of the following year, the Industrial Research Department made a survey of worsted sales yarn production which covered the majority of the sales yarn spinners then operating. This experience demonstrated the need for knowing what was happening to the production of all worsted yarn—that is, sales yarn plus mill yarn, or that produced for mill or firm's own consumption. Sales yarn, for instance, could show an increase, but there was no way of saying how much of such an increase could be attributed to a growing demand for worsted yarn, and how much to the growth of sales yarn at the expense of mill yarn. In fact a rise in sales yarn could occur in the face of a decline in total yarn output; or vice versa.

Accordingly, when the Department planned its first worsted spindle inventory schedule, a section was included on the production of worsted yarn both for sale and for own consumption. Since the inventory schedule was to go to all owners of worsted spindles in this country, it seemed an excellent opportunity to begin the annual collection of definite information on the country's total production of worsted yarn, classified as to kind, and whether for sale or mill's own use. Moreover, production figures of the nature just described were necessary in connection with the inventory, if spindleage was to be properly classified by mill types; sales yarn mills, weaving mills, and sales yarn-weaving mills.

The figures which are given in this report represent the worsted yarn production in 1929 and 1930 of practically all mills (exclusive of four English firms whose

Table I—Worsted Yarn Production
English and French
(in thousands of pounds)

Yarn	1929	1930	Per Cent Change
English	128,433	99,839	—22.3
French	42,483	38,338	—9.8
Total	170,916	138,177	—19.2

Table II—Worsted Yarn Production
By Kinds
(in thousands of pounds)

Yarn	1929	1930	Per Cent Change
TOTAL			
Weaving	100,311	75,657	—24.6
Knitting	39,125	37,541	—4.0
Carpet	9,779	5,425	—44.5
Mohair	7,194	6,268	**
Other*	3,543	3,455	—2.5
Unspecified**	10,964	9,831	—10.3
Total	170,916	138,177	—19.2
ENGLISH			
Weaving	72,001	53,892	—25.2
Knitting	28,242	23,997	—15.0
Carpet	9,779	5,425	—44.5
Mohair	7,194	6,268	**
Other*	3,485	3,320	—4.7
Unspecified**	7,732	6,937	—10.3
Total	128,433	99,839	—22.3
FRENCH			
Weaving	28,310	21,765	—23.1
Knitting	10,883	13,544	+24.5
Other*	58	135	...
Unspecified**	3,232	2,894	—10.5
Total	42,483	38,338	—9.8

*Includes rayon and miscellaneous yarns such as hair yarns, and special purpose yarns. The small number of firms operating in these fields prevented further breakdown.

**Yarns which could not be classified; consist chiefly of knitting, carpet, and mohair yarns. This fact should be considered in reading the mohair figures; moreover, a little mohair yarn was possibly reported by some mills as "weaving yarn". For these reasons no percentage changes were computed for mohair.

Table III—Worsted Yarn Production
English and French
(in thousands of pounds)

Yarn	1929	1930	Per Cent Change
TOTAL			
Sales	86,732	75,479	—13.0
Mill	84,184	62,698	—25.5
Total	170,916	138,177	—19.2
ENGLISH			
Sales	64,557	53,426	—17.2
Mill	63,876	46,413	—27.3
Total	128,433	99,839	—22.3
FRENCH			
Sales	22,175	22,053	—0.6
Mill	20,308	16,285	—19.8
Total	42,483	38,338	—9.8

*Includes commission yarn. Yarn reported as spun on commission constituted less than 3% of the total worsted yarn output in 1929 and 1930.

Table IV—Worsted Weaving Yarn Production
Sales* and Mill Yarn
(in thousands of pounds)

Yarn	1929	1930	Per Cent Change
TOTAL			
Sales	30,996	24,105	—22.2
Mill	69,315	51,552	—25.6
Total	100,311	73,657	—24.6
ENGLISH			
Sales	22,586	17,907	—20.7
Mill	49,415	35,985	—27.2
Total	72,001	53,892	—25.2
FRENCH			
Sales	**	**	—26.3
Mill	**	**	—21.8
Total	28,310	21,765	—23.1

*Includes commission yarn. Yarn reported as spun on commission constituted less than 3% of the total worsted yarn output in 1929 and 1930.

**Not shown separately in order to avoid disclosing the output of individual firms.

spindleage is now unknown; total is probably not in excess of 35,000 English spindles) now operating the worsted system. Of the 152 textile firms making worsted yarn, 108 furnished production figures for their own mills direct to the department as a part of the worsted spindle inventory. The output of the non-reporting firms has been estimated from the production performance of the cooperating firms. The estimating was not done in a bulk fashion, but firm by firm in terms of spindleage, type of yarn usually produced, and State location. It seems evident that this procedure should lead to reliable results for the whole industry since the cooperating firms own over 76% of both the total French and the total English spindleage in active mills.

Summary of Report on Worsted Yarn Production

1. The textile mills of this country produced over 138 million pounds of worsted yarn last year as contrasted with nearly 171 million pounds in 1929.
2. The 1930 slump in worsted spinning output was only slightly more severe than that suffered by industrial production in general.
3. The output of French yarn held up far better in the face of the depression than did the output of English yarn for mill's own use.
4. Carpet yarn experienced the greatest loss in 1930 business as compared with 1929, and French knitting yarn the greatest increase.
5. There were over 86 million pounds of worsted sales yarn produced in 1929 and about 75 million pounds in 1930.
6. Worsted sales yarn production was not as severely affected in the 1930 slump as the production of worsted yarn.

Changes in Yarn Production

American textile mills produced over 138 million pounds of worsted yarn last year. This figure includes both yarn made for sale, and yarn made for mill's own consumption. Moreover, it includes yarn made in carpet mills and knitting plants as well as that spun in regular worsted mills.

Table I compares 1930 output with that for 1929, and measures the extent of the decline. In reading this and the other tables, note should be taken of the fact that production is expressed not in actual pounds, but in thousands of pounds.

Attention is called to the wide difference in the effect of the depression on the French branch of the industry as contrasted with the English. The decline in English output was relatively more than twice as severe as in French. More light is thrown on this situation when the figures on knitting production are presented in Table II. While the drop in worsted yarn production in 1930 was serious, it reflected not a "worsted yarn depression," but the world depression in business. Industrial production in this country fell off 18.5% in 1930 compared with 1929 according to the Federal Reserve Board's index of industrial production which represents about 80% of the country's industrial output in both mining and manufacturing. For manufacturing industries alone, the board's index registered a drop of 19.3%.

Significant Differences

Figures on total French or English production while interesting hide significant differences. For instance, a decline in the output of English yarn may be serious, but the source of the decline can not be traced unless production by specific kinds of yarn is known. That changes in total production might be better understood, Table II has been prepared listing output by kinds of yarn.

Table II does not reveal all of the details that should be available on kinds of yarn produced. However, the classification used in the table was adopted for the inventory schedule as one likely to yield fairly satisfactory results without being too burdensome to those filling out the schedules. The knitting classification used includes hosiery, underwear and jersey yarns as well as outerwear. Undoubtedly, figures by these individual knitting lines would be more valuable to the trade, than the knitting total presented. Again, weaving yarn data would be more meaningful if sub-divided into that destined for men's wear, women's wear, and silk goods. Perhaps mill records could be adjusted in the future to permit the tabulation of such figures without undue effort.

Worsted Sales and Mill Yarn

More worsted yarn is produced for sale than for self-consumption. However, sales yarn has only a slight edge as Table III reveals. In this table "sales yarn" refers to yarn which is sold outside the firm, while "mill yarn" designates that yarn which is consumed within the firm making the yarn, either in weaving cloth and carpets or knitting garments.

Not only has the production of sales yarn slightly exceeded that of mill yarn, but sales yarn also fared better in the 1930 production decline, falling only 13% from 1929 contrasted with a drop of 25% in mill yarn output. Table III, while providing this picture, has given no clue as to whether or not all worsted sales yarns fared alike in the 1930 slump. So further analysis is made in Table IV which presents worsted weaving yarn production broken down into sales yarn and mill yarn.

Considerable uniformity in the reaction of both sales and mill weaving yarn to the 1930 slump is shown in Table IV. This is to be expected in a general depression. Then why the more serious decline in total mill yarn observed in Table III? Sales yarn is made up chiefly of weaving and knitting yarns. Mill and sales weaving yarns slumped alike. So knitting yarns must provide the explanation, and that is obtained from Table II on worsted yarn production by kinds where the total worsted weaving yarn output is shown to have declined 24.6% as against only a 4% decline in worsted knitting yarn. In the two years here covered over 96% of the total worsted knitting yarn produced was made for sale.

[Joseph H. Willits is director of the Industrial Research Department, Wharton School of Finance and Commerce, University of Pennsylvania, and the wool section comprises H. S. Davis, A. H. Williams, Glen F. Brown and D. E. Ladd, secretary.—*Editor.*]

Increasing Production *at the Cotton Mule*

By William King

CONSIDERABLE skill in adjustment of the several mechanical motions of the cotton mule, and extensive practical experience in mule spinning, are necessary in order to obtain from this machine the required production and the desired quality. Periodical examinations of production figures indicate the mules that do not produce the required amount of yarn; but although inefficient mules can be clearly defined, it is not always easy to determine the reason for a loss in production or the reason why yarn does not conform to the desired standard of quality.

A mule driving belt is subject to a great deal of intermittent strain—greatest when the carriage begins its outward run. Any excessive belt slip is easily apparent at this stage of the cycle of operations, since the carriage runs slowly and does not attain its proper speed until it is half way out. Excessive belt slippage is due largely to the condition of the belt face. It may be very dry or exceptionally greasy, although very tight belts as well as very slack ones will also cause excessive slippage. A steady, uniform drive with minimum slip enables the carriage to start on the outward run at the required speed, and to increase this speed until the end of its run. Such a drive is obtained by a belt that runs at a suitable tension; that has an excellent driving surface, neither too dry nor too greasy; that is supple and easily conforms to the pulleys around which it revolves; and that has a neat piecing which is cemented, clamped, laced, or arranged in any fashion which prevents the transmission of a jerky movement to the carriage at the beginning of its outward run.

The counter strap or straps are no less important than the main driving belt, although there is usually less difficulty with this drive than with the main drive. The principles of operation and continuous care and attention that apply to a main driving belt, apply equally well at this point. Stoppages due to unforeseen belt breakages can be greatly reduced if the spinner practices a system of belt inspection.

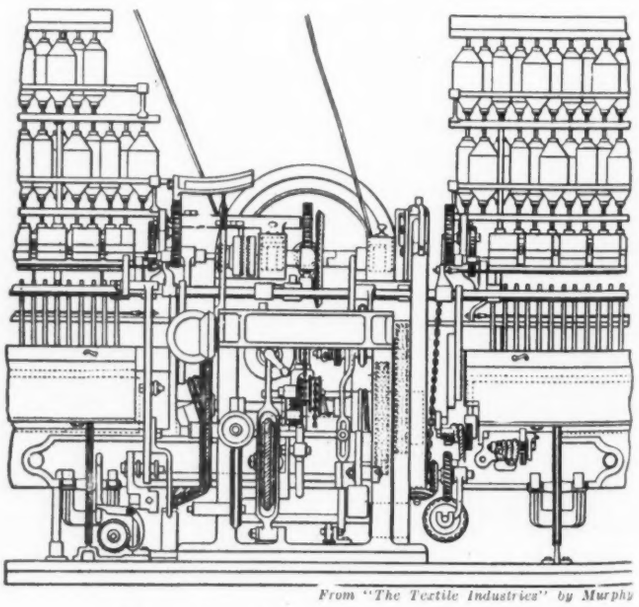
The rim and drawing-up bands frequently cause an avoidable loss in production. It is usual for a rim band to contract during an overnight stoppage, necessitating slacking-off before the morning start. After a few hours of running, the band assumes its normal length and must be tightened to the correct tension in order that the proper amount of twist will be inserted in the yarn. Rim-band piecings need to be well made so that they will withstand the strain resulting from the high speed at which the band revolves, and it is good practice to coat them with a preservative dressing. A daily examination of rim-band piecings will avoid band breakage and its attendant evils. Although the drawing-in band does not run at an exceptionally high speed, care and attention are as necessary here as in the case of the rim band.

Meshing of the Clutch

It frequently occurs that the front-roll clutch-box does not mesh simultaneously with the disengagement of the taking-in friction. Both motions are controlled by the cam; and failure of the front clutch-box to mesh when it should, causes cut yarn due to the carriage moving out while the rollers, for a fraction of a second, are stationary. Invariably the trouble is in the connections from cam to front-roll clutch-box. If the clutch is not sufficiently deep, the clutch teeth or cambowl will be badly worn. The front-roll clutch must mesh cleanly and simultaneously with the disengagement of the taking-in friction, except when the rollers are purposedly retarded by the anti-snarling device.

"Cracking" of the back-shaft clutch-box will cause bunches of snarls to form at the spindle's points, due to the carriage stopping for a fraction of a second while the rollers continue to revolve. The spring which keeps the clutch in gear may be weak, the clutch insufficiently deep, or the disk loose. In spinning coarse numbers with a high carriage speed, this "cracking" is common and very detrimental to the production of a good yarn. It can be prevented by fixing to the creel an additional spring, which keeps the clutch in action during the outward run of the carriage.

A common cause of reduced production is slow backing-off. A mule spinning coarse numbers runs from 4½ to 5 draws per minute. A loss due to slow backing-off of one to two seconds per draw means a considerably reduced production. Slow backing-off may be due to the backing-off friction slipping, caused by a worn fric-

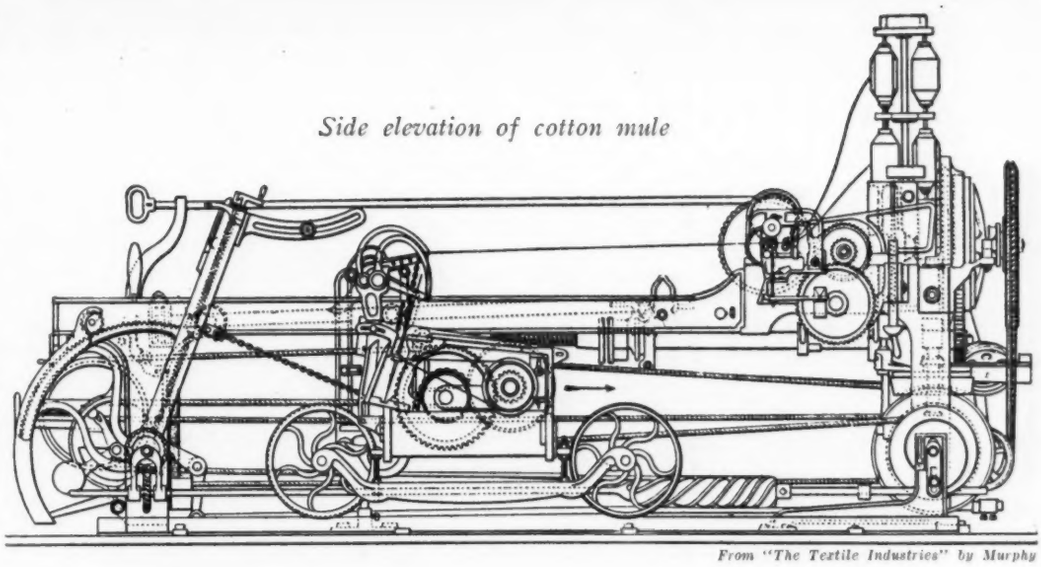


From "The Textile Industries" by Murphy

Front elevation of mule headstock

tion leather or a too open setting of cone to shell. If a friction leather is greasy, a few drops of a solution of soda and water will counteract the effect of the grease. The leather must not be oil-sodden, but should preferably be maintained in a supple state. A worn friction leather should be replaced immediately upon its becoming ineffective. If the leather is in good condition but the setting of cone to shell is too wide, slow backing-off will take place.

Side elevation of cotton mule



From "The Textile Industries" by Murphy

Quite frequently slow backing-off is due to weakness of the charge spring, which forces the friction leather in action, causing it to reverse the direction of the rim shaft and spindles. A weak spring is useless and should be replaced, while more power may be given to a good spring by altering the setting of the collar on the charge rod.

Backing-off Chain

The backing-off chain must coordinate with the speed of backing-off. That is, as the yarn uncoils from the spindles, the winding faller must keep it at the proper tension and at the same time move to the locking position. The winding-faller movement during backing-off is controlled by the length of the backing-off chain, and proper adjustment of this length in accordance with the speed of backing-off is essential. A very short chain moves the winding faller too fast, plucking yarn from the nip of the rollers, while a very long chain causes slack yarn and snarls, especially on fine numbers. If very poor-quality stock is being worked, backing-off speed and winding-faller speed must be retarded to allow for the poor quality; but with average or good-quality stock, quick backing-off is essential to high production.

If the taking-in band is driving properly and at the correct tension and if the friction is working properly, a slow or erratic speed of carriage is due to the position of the scroll shaft at the beginning of the inward run. This position is alterable by first adjusting the back scroll band and then the front scroll band. The setting of the scroll shaft varies slightly according to the type of mule and the type of yarn being spun, but a good starting point is obtained by having the knot pegs on the scrolls leaning slightly toward the front of the headstock when the mule is in a position to begin the inward run. This position will give the best drawing-up speed—the carriage beginning the inward run cleanly and meeting the back-stops at the required speed.

The position of the counter-faller wire during the inward run of the carriage is an indication of winding speed. If it begins high and suddenly falls, to rise and fall again before the end of the inward run, it indicates an erratic speed of spindles, resulting in excessive strain in the yarn and interference with the smooth run-in of the carriage.

As the quadrant—through its box and chain, the winding drum, tin roller-shaft, and spindles—controls the speed of winding, it is here that necessary alterations should be made. First, it is essential that the rope or chain driving the quadrant should be tight in order to exercise full control over the quadrant scroll, and through this the quadrant itself. It must also be of full diameter to make the required contact. If unsteady winding occurs while the chain or rope is tight, the quadrant is not in correct adjustment. An ideal setting is to have the quadrant vertical when the copping bowl is on the ridge of the rail and when the cops are half built. If both rope and quadrant are set correctly, but unsteady winding continues, then the quadrant teeth or quadrant pinion-teeth or both may be worn, or the teeth may not be geared perfectly. It is understood, of course, that initially the quadrant box is in the right position on the quadrant arm.

Non-Mechanical Improvements

In a short article it is only possible to mention a few of the common mechanical faults that reduce production and cause bad yarn. There are, however, many ways in which production may be increased independently of mechanical considerations—by greater efficiency in routine work and by increased attention to practical details. As with most other machines, systematic planning of work by the spinner for himself and his assistants is very essential to the securing of best results. A very important phase of mule spinning is the cleaning of roof, creels, carriage, and headstock, together with sweeping of the floor. Of equal importance is proper lubrication of spindles, tin rollers, draft rollers, the headstock shafts and bearings, and overhead pulleys. Cleaning and oiling should be done according to a recognized schedule.

Likewise, the spinner should have a system of examining bands and straps so that unforeseen breakages, which invariably have very disastrous results, will be avoided. It is a very easy matter to put on a new rim band and piece it if the work is arranged systematically. When bands break during spinning, they cause the mule to run part of a draw without inserting twist in the yarn, in addition to oiling the band around the machine.

Broken ends should be pieced as they break, underclearers kept free from large accumulations of waste, and creeling done before bobbins run empty of roving. Doffing time should be reduced to a minimum by making careful preparations in advance.

Full-Fashioned Hosiery Mills Bitterly Divided

On Union Wage Cut

By John Black

Assistant Editor, TEXTILE WORLD

WITH prospects pointing strongly to approval by the full-fashioned hosiery workers of the agreement reached between the American Federation of Full-Fashioned Hosiery Workers and the Full-Fashioned Hosiery Manufacturers of America, a situation of extraordinary significance is developing in the full-fashioned hosiery industry. Much secrecy and contradiction cloud the picture but through this fog certain things stand forth clearly. The agreement which will carry for a year, provides for a radical wage cut. The cut, it is understood, ranges down from 45% for footers to 30% for the lowest paid divisions, as reported in these columns last week.

Included in the agreement is a clause providing that manufacturers' books be available in case of dispute. According to officers of the manufacturers' organization this will operate as follows: When the mill company and the union disagree as to the ability of the company to pay certain wages, an impartial commission will go over the company books and report thereon.

Behind this agreement lies a story of conflict between union and non-union hosiery mills. The wage cut will enable union mills to cut prices very drastically; indeed it is reported that such is specified in the pact. The price cut will be a direct blow at non-union mills forcing them to do likewise, or lose business; assuming they cut prices they will logically be compelled to cut wages to union level to retain their margin. Close inquiry among leading non-union companies in Philadelphia his week showed them to be strongly opposed to cutting either wages or prices; however, officials of the Full-Fashioned Hosiery Manufacturers Association claim that certain non-union mills will fall in line to aid stability.

The unusual spectacle of a union agreeing to a wage cut—even advocating it—submits to but one interpretation so far, and this interpretation is accepted by numerous impartial authorities. These observers explain it as follows: The full-fashioned hosiery union is in a precarious position; the collapse of the recent Reading (Pa.) strike 24 hours after it was called, is cited to prove this point. The suggestion for the wage cut was made by the union almost immediately after the Reading failure. The union therefore is making something like a last stand; it aims through the wage cut to force non-union mills to cut wages to the point where non-union operatives will finally rebel and will join the union.

So much for the union position. The "open shop" manufacturers, however, incline to a different attitude: They regard it as a war between two groups—themselves and the organized manufacturers, with the union merely functioning as a club to be wielded by the union mills. "Open shop" mill owners intend to offer resistance to the reduction; they oppose a further wage cut and will yield to this resort only after economizing to the maximum in every other division of their business. Many of them regard a price cut of non-union hosiery as inevitable, assuming that the new wage agreement with its price cut implication, goes through.

Details of the new agreement are a closely guarded secret, but the tenor of it as learned by the trade is that the unionized manufacturers pledge themselves to do practically a profitless business with the aim of punishing their unorganized competitors.

At moment of writing a new factor entered the picture with the news that a group of non-union manufacturers had met at a Philadelphia club and organized the Association of Full-Fashioned Hosiery Manufacturers. This new body, it is stated, will lay foundations for an open shop scale of wages substantially higher than that provided in the new union agreement.

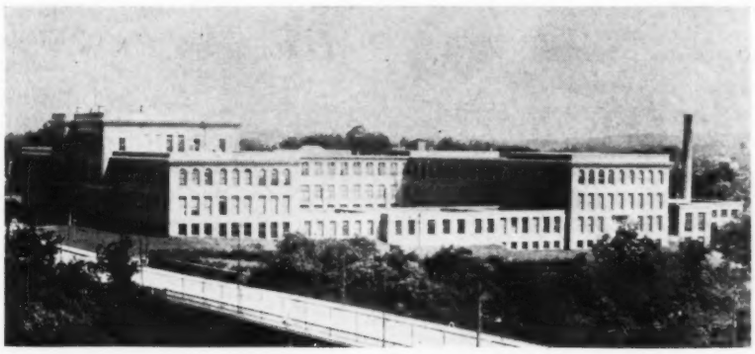
The situation is creating much bitterness and has already had an unfortunate effect on stock movement. Uncertain amid the bewilderment of claims and counter-claims as to what prices will do, buyers have eased up on orders and are waiting developments. This is particularly regrettable at present, when the industry is approaching its best season of the year.

Non-union manufacturers are extremely resentful against their unionized competitors. In a letter to hosiery buyers, John Nash McCullaugh, general manager of Berkshire Knitting Mills, a leading non-union company, strongly criticizes certain manufacturers, charging them with incompetency and with trying to dictate to the industry by creating an ambiguous situation. The letter came shortly after an emphatic statement by Berkshire that they would not reduce prices.

Union Mills Cut Hosiery Wages 30 to 45 %

SEVERAL developments have occurred in the full-fashioned hosiery situation following the writing of the accompanying article. Samuel F. Rubin, president of the Full-Fashioned Hosiery Manufacturers of America announced in Philadelphia Wednesday that member mills of that organization representing perhaps 35% of the full-fashioned industry have already reduced wages 30 to 45% in conformity with agreement reached with the American Federation of Full-Fashioned Hosiery Workers. Edward F. Callaghan, hosiery union official, charged in Reading, Pa., the same day that Berkshire Knitting Mills has reduced wages of footers, loopers and seamers, despite statements to the contrary made by John Nash McCullaugh, general manager of Berkshire. Full-fashion hosiery prices are unchanged but their outlook is very uncertain.

New Course in Textile Marketing *at Lowell Textile Institute*



General View of Lowell Textile Institute

TO FULFILL what seems to be a sorely needed want in the textile industry, the Lowell (Mass.) Textile Institute, under the direction of President Eames, has added a course in marketing to its present curriculum. It will be known as the Sales Option of the present Textile Engineering Department and will lead to the degree of Bachelor of Textile Engineering. Professor H. J. Ball, head of the Engineering Department, will be in charge of the new course and instruction will be given by Charles F. Edlund, a new member of the instructing staff.

The concentration on production that had existed since the inception of industry has become overshadowed since a more or less permanent buyer's market set in, by the increasing emphasis on distribution. This is attested by the phenomenal increase in books on marketing published during the last decade and in the opening of courses in scientific distribution by most of the leading universities.

The importance of a better knowledge of distribution and its methods in the textile industry is illustrated by the action of the Textile Foundation, which is planning to spend a portion of its funds on research in the marketing of textiles. The industry has already been requested to submit suggestions as to possible lines of study.

For the last several years the Institute has maintained a short half-year course in marketing for all seniors for the purpose of familiarizing them with the distribution process. While this will probably be continued, it was felt that facilities for more intensive study of scientific marketing and selling should be offered to incoming students. It was found that a large percentage of former students, although trained entirely in engineering and technical work, had gone into the selling and merchandising of textiles. The value of a technical knowledge of textiles to executives and salesmen is apparent. The Institute believes that by adding to their technical knowledge the principles of advertising, merchandising and selling, the students so choosing, will be better prepared to assume positions and responsibilties in the marketing of textiles. The Sales Option would be of benefit, not only to those who hope eventually to go into sales work, but to those who plan work in the production of textiles. The lack of a generally held "marketing sense" among manufacturers is partly responsible for many of the abuses and evils that at present beset the distribution of textiles.

The Sales Option course will be four years in length, as are all degree courses at the Institute. During the first two years, the Sales Option will be essentially the same as the present engineering courses. During the last two years, the student, instead of specializing in cotton or wool engineering as at present, will devote approximately a third of his time to the study of scientific marketing methods. This will include courses covering the fundamental principles of advertising, salesmanship, marketing research, control, planning, foreign markets, statistics, styling and merchandising as well as the course in business administration that is required of all engineering students. Every attempt will be made to correlate these courses with existing conditions and trends in the textile markets so that they will be of the greatest practical value. At the same time, the student will be acquainted with progressive work in other industries which have preceded the textile industry in organizing their selling and distribution along advanced economic lines.

In addition to making the student familiar with the present knowledge and practices of scientific marketing, the emphasis will be in developing in the student, correct methods of attack and analysis in sales problems by means of the case or problem system of instruction.

In thus equipping the student to take his place in the distribution picture, his engineering training has been adequately maintained, in the belief that a combination of the two is essential, whether the student ultimately finds his place in production or marketing. He will be a technically trained sales-engineer.

Many of the present evils of the industry can be traced to the influence of men who received their training in the days when "things were different." The changed concept of distribution demands men who can meet the changed outlook. The Sales Option has been introduced in the belief that the industry needs men trained in sound selling principles. The present chaotic state of distribution and the inevitable changes that are bound to come require more and more men who are capable of properly guiding the distribution of textiles into sound economic channels. Systems and plans are no better than the men who administer them.

Concurrent Movements *of Full-Fashioned Sinkers, Knock-Overs, and Needles*

By M. C. Miller, M.E.

Mechanical Engineer, Manville, R. I.

◆ *In this installment of his treatise on adjusting the full-fashioned hosiery machine, Mr. Miller continues his detailed discussion of the seventeen distinct positions assumed by each of the three principal knitting elements in the formation of one course of loops. He offers numerous suggestions for correctly adjusting the machine in order that the functions of these elements will be accurately performed.**

AS THE camshaft rotates from 5 to 6, the needles continue to move downward, as shown in view 6, Fig. 44 (all diagrams with this article are parts of Fig. 44). Their up-and-down roller 4 continues to ride up its cam incline. The needle in-and-out motion is, for the first time in this cycle, under the control of its roller 2, which has contacted with a rise on its cam. As the roller of the stitch-regulator cam is still opposite the rest portion of its cam, the movement of roller 2 frees the needle in-and-out motion from the control of the stitch regulator, as shown in Fig. 43 (Aug. 8, page 35). The catch-bar in-and-out motion has moved the jack and dividing sinkers away from the needles, as shown in view 6, Fig. 44, by its roller 3 moving off the high point of its cam, as shown in Fig. 43. The degree of this movement is such that it continues to relieve slightly the flexed condition of the needles as in 5, yet not enough to cause, by any chance, the kinked yarn to be other than snugly held against the front shank of the needles. If there should be any looseness in the kinked yarn, the later downward motion of the needles might cause the pointed end of the beards to pierce some or all of the strands of yarn, later resulting in imperfect loops, as all of the strands or filaments of the newly kinked yarn must go under the beards.

At this point it might be well to state that at about this time the necessity for properly opened beards becomes evident; for, if any beards are set—that is, not open enough to permit all of the yarn filaments to go under the beard with certainty later—no amount of motion setting will produce perfect fabric.

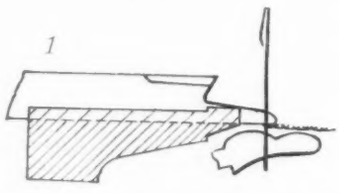
While a slight rise will be noted on the knock-over-bit cam in going from 5 to 6 (Fig. 43), no lifting is imparted to roller 6 of this motion, as it is held far enough from cam contact by its hook 37, Fig. 39 (July 11, page 41).

Downward Movement Varied

In the movement from 6 to 7, the needles continue downward, as shown by view 7, Fig. 44 and Fig. 42, due to their roller 4 continuing to ride up its cam incline, as shown by Fig. 43. It should be noted that, at this point 7 on the needle up-and-down cam *A*, an adjustment is provided for varying the downward needle movement. This rest should be so adjusted that the end or tip of the needle beard is in line or slightly above the underside of the sinkers; so that, as the needles are later pressed, the beard is as low as possible and will not pinch the newly kinked yarn. Neither will the later closing of the beards, in pressing, catch any strands of the yarn of the previously formed loops.

The needles at this time also move toward the press, due to the roller 2 continuing to ride up its cam incline, while the catch bar continues to move the jack and dividing sinkers outwardly by its roller 3 continuing to ride down its cam incline. The degree of this latter sinker withdrawal should be slightly faster, as soon as the tip of the beard has with certainty passed the kinked yarn level, than the movement of the needles toward the press. This is in order that not only will all flexing strain be removed from the needles, but the kinked yarns will be prevented from in any way interfering with the later pressing motion of the needles. It should always be borne in mind that any yarn—either kinked or looped—will usually ride up or down with the needles as far as possible, as shown in Fig. 45 (Aug. 8, page 36). Therefore, while the sinker notch will hold its portions of a kinked yarn high as the needles move down, the portions of the kinks around the needles may well be lowered by frictional contact with the needle shanks, the degree of such yarn movement depending entirely on the length and tension of the kinks, which of course are dependent on the portion of the sinkers toward the needles. The lowering from what appears to be the true yarn or loop height also results when the loops are being knocked over as the needles reach the ends of their strokes down; for, while the knock-over bits effectively hold the sinker bars at their knock-over level, they cannot so hold the loop heads. These are lowered through frictional contact with the needles, depending on the loop lengths, in a similar manner to that in which the

FIG. 44



Needle at extreme high position, previous to yarn kinking, showing positions of sinker and knock-over bit

*Previous installments of this series appeared May 31, July 26, Oct. 4, and Nov. 29, 1930; and March 21, April 25, July 11, and Aug. 8, 1931.

loops rise as the needles move upward, as shown in Fig. 45.

This false leveling of the yarn or loops is very important to have in mind when making the close adjustments necessary to the mechanisms of the knitting elements, as an incorrect conception of the yarn or loop position can seriously affect the making of such adjustments.

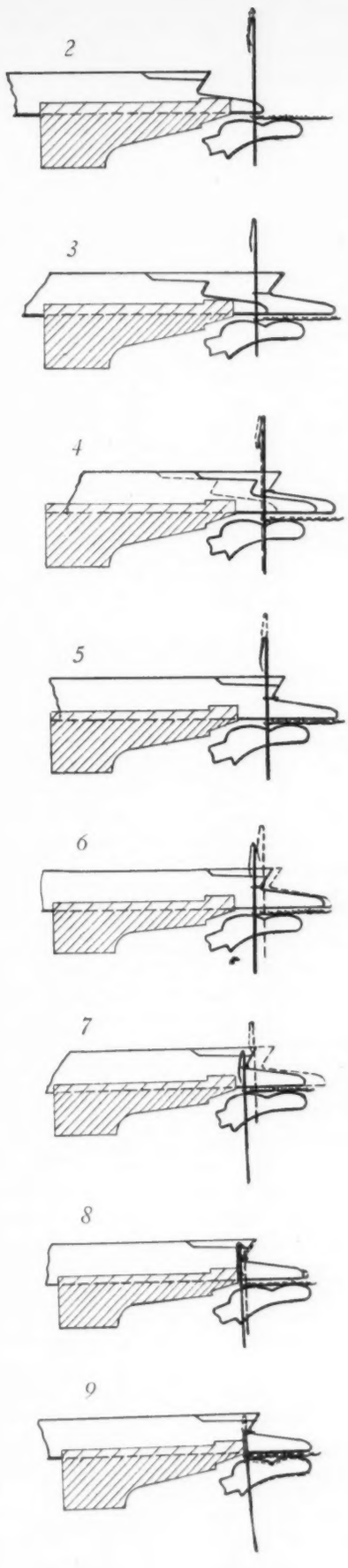
Practically no movement of the knock-over bits takes place in this movement to 7. The catch-bar up-and-down motion remains as it was in position 6 until position 17 is reached. The regulator-motion cam also in no way interferes with the needle in-and-out motion again until position 16, so that we are from now on concerned only with four of the motions.

Slight Upward Movement

It will be noted by examining Fig. 42 that, as the camshaft moves from 7 to 8, the needles make a slight upward movement as they move toward the press. The object of this upward movement is to lift, by frictional needle contact, the kinked yarn on the shanks of the needles, so that during the pressing motion there is a greater certainty that the kinked yarns will not fall low enough to interfere with the tip of the beards entering the eye of the needles.

By studying Fig. 43 it will be seen that the movement of the needles toward the press is brought about by the roller 2 continuing to ride up its cam angle. It is to be particularly noted that in Fig. 42 the needle head at 8 is shown as being in its maximum position toward the press, whereas an examination of its cam *B* (Fig. 43) will show that complete pressing is not achieved until 9 is reached. Although at position 8 the needles are pressed, the later overpressing is desirable, and quite necessary in case any of the needles are not pliered in and out exactly in line, in order to insure that all of them will be pressed. The slight upward motion of the needles in going to 8, previously noted, is brought about by a slight depression of the needle up-and-down cam at 8, as shown in Fig. 43.

The in-and-out catch-bar motion moves only slightly between 7 and 8, as shown by Fig. 43, the purpose being to withdraw the sinkers slightly as the needles are flexed to press, the elements therefore being in the position shown in view 8, Fig. 44. Care should be exercised to see that there is no straining of the new yarn and a resultant attempt at flexing the needles by the yarn; as all such flexing must, during the subsequent beard pressing, be caused by the beards contacting with the pressing edge of the sinker head.



Yarn is sunk between needles and caught by their descent. Beards are pressed

Flexing of Needles

As the camshaft rotates from 8 to 9, the needle in-and-out roller 2 rides to the extreme throw of its cam, thereby flexing the needles. The degree of flexing should be as little as possible and still enough to press with certainty all the needle beards in their eyes. This degree of press can easily be determined by lifting the link 16 (Fig. 39) and noting by feeling the pressure on the link how much press has been applied. The needle hooks should not in this examination be under pressure more than $\frac{1}{16}$ in., the object being to use as little press as possible so as not to injure the beards by forcing them too hard into their eyes.

It is now to be noted that the needle in-and-out cam *B* is—at the press point—provided with an adjustable portion to make it more readily possible to adjust the degree of press for the wear of each individual section. This adjustment should not be used for any other purpose; nor is there any other need for it if the machine has been properly set up.

While there is a slight rise on the in-and-out catch-bar cam between 8 and 9 (Fig. 43), this is really not desirable at this time, as it might well interfere with the correct pressing of the needles, which are preparing to pass through the fabric with their beards closed. The downward motion of the needles is made possible by the rising of the roller 1 on its cam, as shown in Fig. 43. This coming in of the catch bar should always take place after the needles have reached their down position, as shown in view 10, Fig. 44. At this time a flexing of the needles by the new yarn is not detrimental, as pressing is over. In fact, a straining of the new yarn when knitting has progressed to 10 is desirable, as it would re-divide the new kinks to make them of more regular lengths. It will be noted that the cam *D* is fitted with an adjustable portion at 9. This is to make possible an accurate re-dividing of the newly kinked yarn immediately after 9.

The slight rise shown on the knock-over-bit cam (Fig. 43) between 8 and 9 has really only a

negligible effect on raising the knock-over bits, although a lifting of the bits at this time is not objectionable, as it would raise the fabric upward on the closed beards.

In the rotation of the camshaft from 9 to 10, the needles continue to go down; but not far enough to strain the newly kinked yarn over the sinker noses. The press is slightly relieved, and this is permissible because the tips of the closed beards are at this time well below the fabric line. The catch-bar in-and-out motion also moves out slightly, while the knock-over bits remain in about the position they held at 9.

New Yarn Drawn Off Sinkers

During this camshaft movement from 10 to 11, the needles fall rapidly away from the press and sinkers, due to the in-and-out roller 2 riding into its cam depression, as shown in Fig. 43, while the needles at the same time continue to move downward, first quite fast and then at a decelerated rate, as shown by the cam *A* in Fig. 43. Meanwhile the catch bar continues to move all the sinkers outwardly. All this is shown in view 11, Fig. 44. The object is to permit the newly kinked yarn to be drawn off the sinkers. During this motion it is not desirable to have the kinked yarn under any great tension, as it slides over and off the sinker noses. This will cause a pulling down of the sinkers, which will in time cause excessive wear in the bottom of the sinker slots. A relatively light tension of the yarns during this falling away of the needles is desirable, however, in order that the yarn will be held accurately in its properly kinked condition. The most important part of this motion is that at which the kinked yarn is just riding off the extreme end of the sinker noses. At this time any variation in sinker-nose length or in the shape of the upper surface of the noses, or any slight roughness, can materially affect the appearance of the finished fabric. Sinker variations will vary the length of certain kinks and thereby produce variously sized loops. While these will to a degree be re-measured later over the knock-over bits, such re-measuring will in many cases not entirely re-kink the new yarn accurately.

In this movement from 10 to 11, the knock-over bits assume their highest position, as shown by the rise formed on their cam *F* (Fig. 43). The object is to lessen the distance through which the needles must travel as they move the now unsupported and easily disturbed newly kinked yarn from the level of the noses of the sinkers to the level of the knock-over bits. Just how much effect the lessened distance and the movable knock-over bits have on the appearance of the fabric is controversial. Certainly the fact that they are movable can do no harm, provided the construction of the movable feature insures rigidity and adjustability for leveling and height.

Loops Crowded to Back

As the camshaft rotates from 11 to 12, the needles continue going down, with the knock-over bits remaining in their high position; while the jack and dividing sinkers remain as they were in position 11. The needles, in so far as their in-and-out position is concerned, remain about in their previous position, farthest away from the press. The slight difference noted in the in-and-out needle position shown in Fig. 42 is due to the arcuate movement of the needles, although some movement of the needles toward the press is permissible at this time. The object of the needle motion between 12 and 13 is to crowd the previously knitted course of loops toward the back of the needles, so that the previously knitted loop heads will not interfere with the later rising of the needles.

The knock-over bits in position 12 remain as they were in the previous setting, the needles at this time not drawing the kinked yarn hard over the knock-over bits. The object is merely to bring the head of the needle slightly below the knock-over bits so that the fabric take-up can draw the fabric, particularly the previous course of loops, toward the back of the needles.

This movement of the fabric is accelerated by the subsequent movement of the needles to positions 13, 14, and 15, and particularly while in position 14. In the latter position the new kinked yarn, which is now formed into loops, should be under its fullest tension over the knock-over bits; that is, the fullest tension for the tightest fabric that the machine is expected to knit. It must be remembered that these machines have no provision for varying the needle up-and-down movement; so that, regardless of how tight or loose the fabric is to be—that is, regardless of how short or long the kinks in the new yarn and their resultant loops may be—there is no provision for automatically varying the stroke of the needles. For this reason, all adjustment for the down draw of the needles must be regulated in accordance with the shortest loop lengths that the machine is supposed to knit while producing a particular set of stockings, regardless of how long the loops may be at other portions.

In this connection it should be remembered that all variation of any complete courses of loop length must be regulated by moving the handle 12*a* (Fig. 39) of the stitch-regulator lever, so that the needles will, during couliering or yarn sinking, stand closer to the sinkers for loose knitting and farther away for tight knitting. All such adjustment or variation must of course be manual, and it is usually done while the machine is running, particularly during the desirable loose knitting of the upper or welt portion of the stocking.

For Loose Courses

When partial courses of fabric that are looser than the body fabric are to be knitted, as when high-splicing or reinforcing before the heel (high heel knitting), there is provided another cam on the camshaft 1 and another roller lever rigidly fastened to the regulator shaft 11. This lever, when its roller is placed either manually or by timing-chain control into cam action, can oscillate slightly and adjustably the regulator shaft 11 and thereby cause the needles to move toward the incoming jack sinkers and remain so positioned during the time the sinkers are kinking the new yarn for any fixed and specified number of needles. That is to say, the needles will, during such knitting of each reinforcing course, move toward the sinkers at the commencement of the course and so remain during the sinking of yarn for the reinforced area. They will then fall away from the sinkers during the sinking of yarn for the central or instep portion and will thereafter, during the sinking of the yarn for the other reinforced area, again move toward the incoming jack sinkers and remain so moved until the end of the course.

The degree of movement is adjustable, while the periods of time the needles remain so moved is usually fixed, dependent upon the circumferential length of the partial-course loosening cams. However, in the latest types of full-fashioned machines, which are designed for varying the length of such partial reinforced courses, as when producing shaped and design-thickened portions of fabric before the heel, the time periods or length of

course or courses for so knitting are manually and automatically variable.

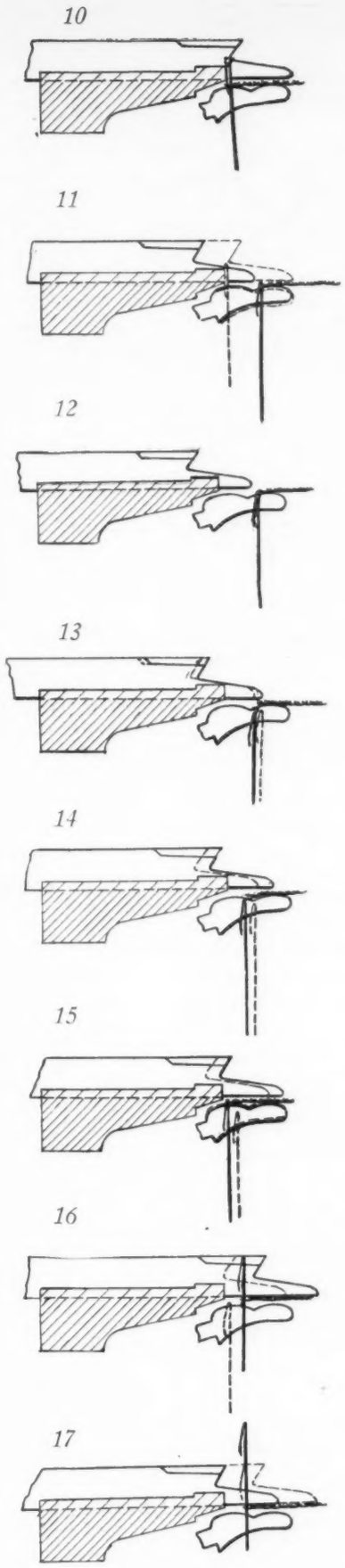
In the camshaft rotation from 12 to 13, the needles continue to go down slightly and toward the press; that is, they move against the pull of the fabric take-up. Meanwhile the catch bar brings the jack and dividing sinkers slightly forward, as shown in Fig. 13, in order that they will be in position to hold down the fabric as the needle hooks later come out and up from between the knock-over bits. The particular knock-over-bit cam illustrated at Fig. 43 shows a slight lowering of the knock-over bit during the movement from 12 to 13, while the up-and-down needle cam during the same movement continues to draw the needle down.

The advantage of this movement of lowering the knock-over bits at this time is problematical; but whatever the degree of movement, if any, between the needle and knock-over bits at this time, the object is to re-kink the loops just formed during this and the subsequent movement from 13 to 14. This is in order that clear- and even-looped fabric will be produced and that the heads of the previously knitted row of loops will with certainty be brought to the back and if possible beyond the back line of the needles. It must be borne in mind that the degree of permissible fabric tension is within very close limits. This is in order that the loops just formed will not be overstrained and cut.

During the movement of the camshaft through 14, 15, and 16, the catch bar continues to bring the sinkers forward. This long stroke of the sinkers is of no particular advantage in so far as the holding down of the fabric is concerned; but it is absolutely necessary for correctly forming the edge or selvage loops, as will be explained later under the heading of selvages.

During these movements, the knock-over bits continue to be lowered gradually; but they could remain high if the needle motion fitted such a high knock-over bit position. All that is required is a clean finish of the row of loops just previously formed.

It is desirable to bring the needles into the position 15 with their heads as near to the sinker support (Fig. 43) as possible. The purpose is not only to get as long a fabric-wiping action on the knock-over bits as possible, but also to enable the needle hooks to come up between the sinkers, where they are well supported. From this position they will, with certainty, pass up between the sinkers. This would not be possible from other than a position quite near the sinker support, due to the relatively thin sinkers being very easily disaligned. As soon as the needle hooks have moved upward slightly between the sinkers, they can move away from the support, as shown in Fig. 42, assume the position 16 and 17, and again come to the position 1, the catch bar drawing the sinkers away from the needles after their inner position at 16, in order to have them again in position as shown in view 1, Fig. 44. The considerable distance between the yarn-kinking throat of the sinkers and the needles as shown in view 1 is necessary, as numbers of yarn tubes, forming part of the yarn-carrier mechanism, must work between the sinker kinking throats and the front line of the needles.



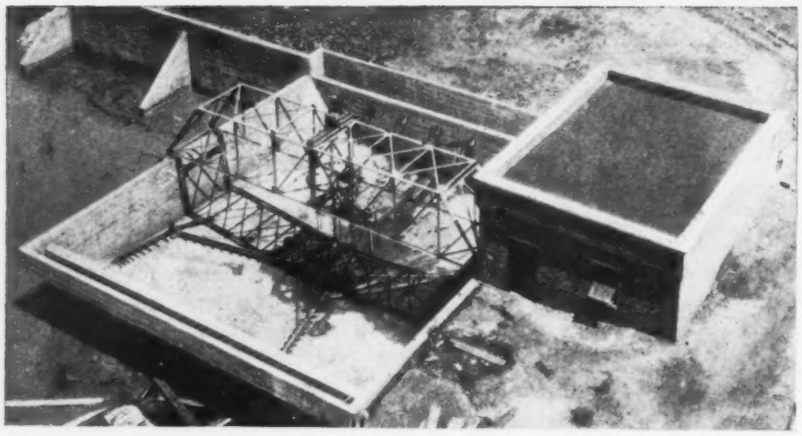
Old loops are knocked over and parts returned to first position

Adjustable Cam Portions

It will be noticed that the cams shown in Fig. 43 have at certain portions of their outlines a series of dotted lines. The object of these lines is to show that at these portions the cams are fitted with adjustable portions and can be individually adjusted either for wear or for accurately adjusting the particular motion of which any individual cam forms a part. If each set of cams is accurately machined and the machine has been properly set up, it should not be necessary and it is not desirable to make use of this individual and local cam adjustment, other than for wear.

After studying all the foregoing, it is quite apparent that it is necessary, in order to produce even- and regular-appearing fabric on full-fashioned hosiery machines, that all like cams be very accurately set circumferentially in relation to each other and to sets of like cams. It is also evident that the adjustments provided in the various levers be accurately set to produce like movements throughout the machine length in every one of the motions and that the sinkers and knock-over bits be set absolutely level in relation to each other and to the needles.

In following articles the step-by-step moves will be described for setting up a machine of this type so that the elements are level to each other and so that the cams and levers will transmit the correct motions accurately to the elements.



Waste-disposal system installed at a New Jersey textile plant. Equipment consists of a Dorr clarifier in a square concrete tank and agitators and feeders housed in brick building.

Modern Practice in Disposal and Recovery of Textile Wastes

DISPOSAL of trade waste is a matter of increasing importance to executives and engineers. The accompanying articles, which deal particularly with up-to-date methods employed in various branches of the textile industry, are abstracted from September, 1931 issue of *Chemical & Metallurgical Engineering.*

Disposal of Textile Wastes

By Walker E. Hadley
Consulting Chemist, Maplewood, N. J.

SUCCESSFUL disposal of trade wastes may be illustrated by the example of a plant engaged in the mercerizing, bleaching, and dyeing of cotton materials. The work was carried out in a plant which, at that time, had no sewerage disposal facilities, and the only means of disposing of the trade waste was to so treat it, so that it could be discharged into a small brook which flowed through the property. It was recognized that in discharging into this brook, the waste must be neutral, water-white, and free from suspended matter. It was further recognized that the "oxygen content" of the brook water must not be impaired, lest the plant and animal life, which abounded, would suffer.

The fact that the disposal was to be carried out at a new plant, which at the beginning of the operations was not wholly completed, gave an opportunity to study the various phases, at first singly and later in combination, as the different sections of the plant began operations. Prior to the time of starting the new plant, it had been impossible to visualize the character of the composite wastes, as the various sections of the old plant were too widely separated to make such a collection feasible.

Two 200,000-gal. tanks, which could be used singly or in combination, were installed for holding the raw waste, the contents of either one of these tanks being discharged for treatment while the other was being filled. The character of the liquor contained in the tanks was determined by chemical means, in order to determine the proper dosage to prepare it for disposal.

The bleach house, was the first unit completed and hence, for some time, we had opportunity to study the character of the trade waste from this source. The waste consisted of (1) dark brown liquors from the kiers boiled with caustic soda, containing the gums, pectins, and albuminous matter from the cotton; (2) wash waters from the calcium or sodium hypochlorite bleach treatment; (3) wash waters from the sour (sulfuric acid) treatment; and (4) the extracted soap and tinting solutions from the finishing operations. While early observations seemed to indicate that the eventual composite would be dark brown in color, it was found that the dilution, caused by the wash waters and the presence of chlorine from the bleach, gave a solution comparatively light in color.

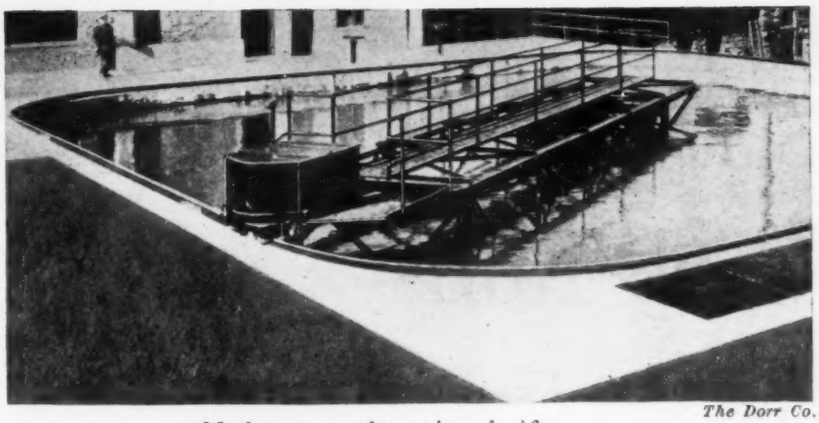
Treatment consisted in the addition of hydrated lime and aluminum sulfate added in such amounts as to produce aluminum hydroxide just heavy enough to entangle the organic and coloring matters and produce a "flock" which would quickly precipitate. The apparatus used was the Dorr clarifier, with a rated capacity of 50,000 gal. per hr.

The original design of the clarifier called for mixing of waste and coagulating chemicals in a central well, but this was later changed by blocking off the edge of one-quarter segment of the tank, nearest the feeders, entering the treated waste in this section, and allowing to travel directly across the tank before discharging the clear liquor over the periphery. Adoption of this method improved the control of the treatment so that a sample of waste, removed $\frac{1}{4}$ min. after dosage, proved a reliable index of the entire treatment. The slowly revolving arms in the bottom of the settling basin caused the sludge to be drawn to the bottom of the central well, whence it was removed by a suction pump.

The second unit to be put in operation was the mercerizing plant, where no trouble had been anticipated, as the waste consisted entirely of caustic soda, washed from the material after mercerizing. What actually did cause trouble, however, was the large amount of caustic soda (about 1,500 lb. per day) to be disposed of. The alum treatment, used with such success on the bleach-house effluent only, when increased sufficiently to neutralize the caustic soda, produced such a tremendous volume of sludge that the entire settling basin was filled, allowing no room for settling. In order to overcome this condition we added sulfuric acid from carboys, and in spite of the expense had to continue this treatment until a large iron tank, capable of holding 20 tons of 66 deg. Bé. acid had been installed. The acid was then fed, by gravity, to the raw waste entering the collection tanks,

and thus we are able to again produce, as desired, a practically neutral raw waste.

The third, and last unit to be installed was the dye-house. While it had been anticipated that the waste from this section would cause most trouble, we were agreeably surprised to observe that the dilution, caused by the other wastes, gave an extremely light-colored solution, and one which responded readily to the regular treatment, which had, by that time, become quite well standardized. Some trouble was experienced in the use of certain dyes, such as the naphthols and basic colors, which were allowed to enter the raw waste. By chemically destroying the color in the concentrated dye-bath before it entered the raw waste, all trouble was avoided.



The Dorr Co.

Modern type of traction clarifier.

The process water was obtained from a brook, and possessed such a degree of hardness, due to calcium and magnesium salts, that it was necessary to give a zeolite treatment in order to properly soften it. The zeolite beds naturally required a regenerating treatment with sodium chloride, which in turn had to be disposed of. Owing to the high amount of magnesium chloride in the wash waters from the zeolite regeneration, we could not discharge this directly to the stream, but fed it into a large sump outside the filter and softening house. There it was treated with a strong solution of caustic soda in order to produce insoluble magnesium hydroxide, the supernatent liquor thereafter being discharged directly to the brook. The sludge is subsequently removed to waste land when the sump becomes too full for operation. Aluminum hydroxide sludge, when spread upon unused land, becomes readily agglomerated with the earth.

The necessity for treatment with new caustic soda was eventually overcome by piping the waste to the central collection tanks and allowing the waste caustic soda from the mercerizing plant to accomplish this work, thus again materially reducing costs.

The cost of the process was high owing to the large volume of waste which required treatment, this often amounting to 500,000 gal. per day. If several plants, located in the same area, could treat their wastes jointly, it would mean lower labor cost; and it is quite probable that the waste from one plant would counteract that from another, thus reducing chemical charges.

Recovery of Tin-Bearing Wastes

By Victor Froelicher
Director of Research
Textile Dyeing & Printing Co. of America, Hawthorne, N. J.

SILK weighting establishments use large volumes of water for washing purposes. The possibility of polluting adjacent streams demands that these wastes be neutralized, and economic considerations dictate the recovery of the valuable tin salts, both soluble and insoluble. When recovered in compact form, these salts may be resold to the manufacturers of the weighting chemicals and thus made to yield a handsome revenue which pays back the cost of recovery several-fold.

Standard recovery practice in this industry used to consist of treating the tin-bearing solution with lime for neutralization of the acid and then passing through one or more of a series of hopper-bottomed, concrete settling tanks for the precipitation of the tin hydrates and oxides. A relatively tin-free and neutral solution overflowed from these tanks to the sewer or river. Periodically one or more tanks would be withdrawn from service so that the precipitate might be withdrawn for filtration on plate and frame presses and drying in coal-heated tunnel driers.

More up-to-date recovery plants, such as the one at the Hawthorne, N. J., works of Textile Dyeing and Printing Co. of America, utilize modern continuously-operated equipment throughout, and employ close chemical control of all operations. Reduced labor costs, higher recoveries, less fuel consumption, and greater reliability adequately justify the pains taken in the design and operation of the tin waste treatment plant.

The rate of flow of tin-bearing waste water, in the case cited, averages 1,600 gal. per min., contains, at times, as much as 90 mg. per liter of tin salts and a few hundredths of one per cent free hydrochloric acid. Small as is the concentration of the tin salts in the wash water, their value will average about $150 a day, based on capacity operation of the weighting department and pure tin quoted at 30c. a pound.

At this plant the tin-bearing wastes are neutralized by the addition of a milk of lime slurry, continuously added from an agitating tank controlled by routine chemical analyses of the final discharge to the river. The neutralized water then flows through a concrete tank, 70 ft. square, equipped with a Dorr clarifier for the collection of the precipitated tin salts and a diaphragm pump for the removal of the salts and their feeding to a storage tank above the drier.

The drier used is of the spray type, designed and developed by Industrial Associates, Inc., of New York. The sludge fed to the spray drier contains about 95% moisture and is reduced to a moisture content of about 10% by being sprayed through a high-speed centrifugal atomizer into a chamber through which hot air is continuously forced. The instantaneously dried tin salts fall to the bottom of the drying chamber and are discharged directly into shipping containers on the floor below.

The complete tin recovery plant at Hawthorne operates continuously. The effluent from the clarifier is either neutral or slightly alkaline and contains about 2 or 3 mg. of tin salts per liter, corresponding to a tin recovery of 97 to 98%. This modern mechanically-operated plant occupies much less space than its intermittent manually operated predecessor and costs about one-third as much to operate.

Study of Cork Rolls *for Cotton Spinning*

By H. H. Willis

Director, Textile Department,
Clemson College, S. C.

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◆ *The suitability of cork rolls for cotton spinning has been discussed in animated meetings of spinners for some years. The accompanying report on the results of tests and investigations conducted on the problem is the most adequately substantiated presentation of the case we have seen to date. However, as usual our columns are open to a discussion of both sides of the subject, and both Mr. Willis and ourselves will welcome any further data—whether confirmatory or contradictory—which readers may care to submit.*

IN the meetings of practical mill men one almost invariably encounters some discussion of the advantages and disadvantages of cork rolls, and some differences of opinion on the subject are expressed. As very little published data based upon well-conducted spinning tests are available in this connection, and since a number of mill men have shown an interest in getting further reliable data on this matter, the writer will set forth in this article some of his findings based on tests and investigations.

Points to Be Considered

There are two main points to be considered in such a study. Probably the first question a practical man will ask is, "Will a change to cork rolls reduce my cost?" The second question is, "Will the change affect the yarn strength and running qualities of the work; and if so, to what extent?"

Before discussing these questions, perhaps it would be well to present the opinion of mill men in regard to the life and cost of these rolls, as reflected in the proceedings of their meetings. It is generally conceded that the life of roller coverings depends to some extent upon the number of the yarn being spun, the speed of the machine, the manufacturing qualities of the cotton used, and the grade of material used in covering the rolls. As recorded in various proceedings of the Southern Textile Association, several men who have made some investigations in this connection report that they have cork rolls which have run for four years or more with only two buffings. Still another man states that he has used cork rolls for four years with no buffing. The average life of leather rolls is variously reported by mill men as from 4½ to 8 months, depending upon the class of work; and the cost per spindle per year is placed at from 12 to 22c., depending upon the class of work and quality of material used in the roll coverings. Based on the various statements, the average cost of leather rolls per spindle per year was 15.5c.; and their average life, six months.

Basis of Comparison

In addition to studying the cost and life figures as recorded from these meetings of practical mill men, the writer consulted a man who has probably made a more thorough investigation of roller coverings than has any other man in the South. This man stated that the average life of leather rolls is six months, and their average cost 7½ cents. Since two leather rolls are required per year, their cost is twice 7½ or 15c. per roll per year, which is of course 7½c. per spindle per year. He further stated that the average life of cork rolls, including two buffings, is two years, and that the cost is 12c. plus 1c. per buffing, or a total of 14c. Thus the yearly cost of the cork roll is estimated at half of 14c. or 7c.—in other words, 3½c. per spindle per year, as compared with 7½c. per spindle per year for leather rolls. Since these latter figures on cost and life are more conservative than the average of those given in the general discussion, the writer has chosen to use them as a basis of comparison.

Now we are in position to answer the first question—that of comparative average cost of cork and leather spinning rolls. Cork roll costing 14c. lasts 24 months. Leather roll costing 7½c. lasts six months; or in other words, the leather roll sufficient to last 24 months will cost 7½c. times 4, or 30c. This difference may not sound startling: but it acquires significance when applied to a 25,000-spindle mill on coarse work, using some 30,000 leather rolls per year.

If the average cost of the 30,000 rolls used in this mill is 7½c. each, the roller bill per year is $2,250. If this mill were using cork rolls—based on their average life of two years—it would require 7,500 rolls per year at 14c., including two buffings, or $1,050, giving a net saving of $1,200. On a similar basis, mills having 100,000 spindles could effect a $4,800 saving per year. Thus by changing from leather to cork rolls, cost is reduced at the rate of 4c. per spindle per year, and the first question is answered affirmatively.

Let us now consider the second question; namely, "will the change to cork rolls affect the running qualities and strength of yarn; and if so, to what extent?" The writer bases the answer to this second question upon spinning tests he recently conducted.

Description of Test and Results

In this test were used two different lots of cotton differing slightly in length of staple, each lot being composed of cotton taken from an eight-bale mix. For convenience these lots will be referred to as lots 1 and 2.

The two lots were manufactured under the same mechanical and moisture conditions. Each of the lots was divided into two parts—one of which was spun with cork rolls; and the other, with leather rolls. The organization,

speeds, and settings conformed to those used in usual mill practice for carded 20s warp yarn. The humidifiers were regulated and automatically controlled so as to maintain a relative humidity of 50% in the picker room, 60% in the card room, and 70% in the spinning room.

Comparison of Visible Waste

Since invisible waste is largely dependent upon the amount of moisture and dust in the cotton and upon the degree of humidity maintained in the mill, only the visible waste has been listed herein. The staple of the cotton, the amount of waste removed at the cleaning machines, and the strength of the 20s yarn are listed in the accompanying table.

STRENGTH DATA

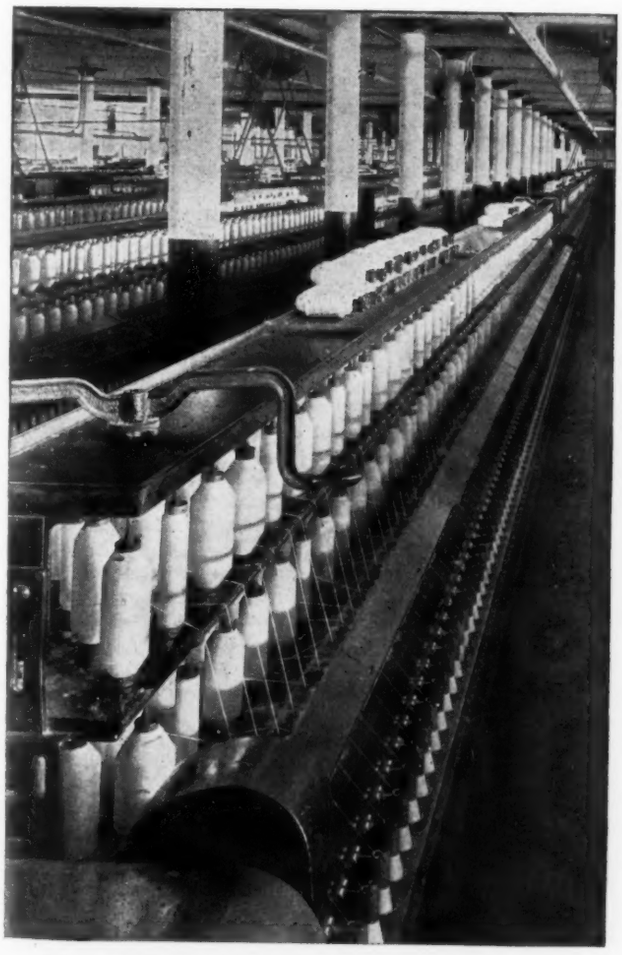
Based on 50 skeins on each lot and for each roll

Lot Tested	Staple Inches	Total Visible Waste Per Cent	Strength of 20s yarn: Cork Rolls Pounds	Strength of 20s yarn: Leather Rolls Pounds
Lot 1	1⅛	7.6	117.79	114.97
Lot 2	1–1/16	7.8	116.56	115.71

It will be noted from this table that both lots of cotton, when spun into 20s yarn using a 4.25 twist multiplier, produced slightly stronger yarn when cork rolls were used on the spinning.

The number of ends breaking per hour per 100 spindles is an important item; since the greater the number of broken ends, the fewer sides a spinner can run. Accurate records were kept during this test. There was no appreciable difference in end breakage in spinning between the two types of rolls.

Uniformity of yarn strength is also of considerable importance. The skein break indicated that the uniformity of yarns spun from the same lot of cotton was not affected by the kind of roll used. Thus, test results indicate that the use of cork rolls increases the strength of the yarn spun, but has no appreciable effect on the running qualities of the cotton.



Small efficiencies per spindle will amount to something when multiplied by thousands

Increase Production

We have answered the two main questions. However, the question of increased production and the lowering of spinning cost aside from the cost of rolls should be considered. Every time a spinning roll is worn out or torn up, a loss in production occurs. Therefore, based on the average life of the two types of rolls, this loss, whatever it may be, is four times as great for leather rolls as for cork rolls.

This loss is probably more than might appear at first thought. When running a section of 48 frames, the writer has put in from 50 to 80 rolls in one day. This affects from 100 to 160 spindles. The loss of time and hence loss of production on each one of these spindles ranges from a few minutes up to possibly an hour, depending upon the amount of other work which the section man may, in the meantime, find it necessary to do. Someone may say that the amount of time thus lost is too small to consider, but it is the accumulation of these small leaks around the mill that lowers production and increases cost. Let us again take as an illustration the 25,000-spindle mill using some 30,000 leather rolls per year. These 30,000 rolls would of course affect 60,000 spindles. Assuming that an average loss of time per spindle is 10 min., the yearly loss in production time would be $60{,}000 \times 10 \div 60$, or 10,000 spindle hours. Based on the average life of cork rolls as compared with that of leather rolls, 75% of this loss is preventable by substituting cork for leather rolls.

Effect of Humidity

High humidity and hard ends do not seem to affect the cork rolls as much as they affect leather rolls. When the humidity is high, the fibers will lap up less often on cork rolls. Hard ends will not groove and ruin a cork roll so quickly as they will a leather roll.

The number of slubs or thick places in the diameter of the yarn caused by piecing up on the spinning when roll changes are made is greater when leather rolls are used. On the basis of the foregoing, there are some 60,000 piecings on leather-roll changes. By using cork rolls this number of piecings can be reduced to 15,000 on the same basis. With fewer piecings, production on the spoolers is increased and the number of chances for breakage and stoppage in weaving is decreased.

Summary of Survey

To summarize, it appears from this study that cork rolls as compared with leather rolls cost 4c. less per spindle per year on the basis of length of life, produce a slightly stronger yarn, increase production, lower spinning cost, and improve quality of the product in that the possible number of slubs resulting from roll changes is fewer. No one of these items may in itself represent a large sum of money, but the preventable loss represented by the sum of these items is considerable.

Purposes and Plans for Promoting "National Wool Week"

UNDER the title "Things to Know About National Wool Week," F. E. Fitzpatrick, Washington representative of the National Wool Marketing Corp., has distributed the following information to those interested:

Purpose—To promote trade and public interest in wool and woolen products; to establish a basis of permanent coordination between the various agricultural, industrial and mercantile groups who would be directly or indirectly benefitted by broader consumer acceptance of woolens; to crystalize fashion sentiment in behalf of woolens; to encourage creators of all types of style-sensitive commodities to present the fabric in its most appealing guise; to evolve and publicize new uses for woolens; to modernize the merchandising of woolens; to engender an aggressive and constructive attitude on the part of those engaged in woolen production and distribution.

Procedure — Fashion, economic and human interest publicity in the trade and consumer press; design contests; distribution of posters, matrices and window and interior display suggestions for retailers; store and community style shows; radio programs and numerous other effective media through which wide-spread and wholehearted co-operation can be enlisted.

Sponsorship — The National Wool Marketing Corp. in collaboration with representative organizations of growers, wool dealers, mills, apparel, carpet and other manufacturers utilizing woolens, wholesalers and retailers.

Organization—An executive committee formulating and directing the policy and procedure; a general committee, composed of spokesmen for the various phases of the woolen field who will direct promotional and other activities in their respective branches.

Date—As yet undetermined but with the latter part of October or the early part of November tentatively favored; announcement of the exact date will be made shortly.

Place—Throughout the United States.

Still Working on Legislative Restriction on Cotton Growing in South

COTTON growers of the South have been requested by the governors of several cotton producing States to voice their wishes in regard to possible legislative restrictions on the acreage devoted to the staple in 1932. As predicted in these columns last week, Governor Blackwood, of South Carolina, called a special session of the general assembly of that State which convened on Monday of this week. It is planned to limit the South Carolina legislature to a session of ten days during which time only matters affecting the cotton situation will be considered.

The widely-publicized plan advanced by Governor Long, of Louisiana, whereby the planting of cotton would be prohibited entirely during 1932 seems doomed. Its rejection by the Texas legislature appears to be certain and, even if the bill were passed in that State, Governor Ross Sterling has already indicated that he would veto any bill containing the terms of the Long proposal. More likely to pass the legislative mill in Texas, however, was a plan to restrict acreage next year to one-half of the area devoted to cotton this season. Still another suggestion was the acreage be reduced to one-third.

Among the more frequent arguments advanced against the Long plan is that it would result in virtual unemployment for thousands of farmers, farm-hands, shippers, warehousemen, truck owners and their drivers, and seriously curtail the cotton tonnage hauled by southern railroads. H. Lane Young, chairman of the agricultural commission of the American Bankers Association, and vice-president of the Citizens & Southern National Bank, Atlanta, Ga., and David R. Coker, Hartsville, S. C., internationally known cotton expert and agricultural vice-president of the Southeastern Economic Council, are among those who have voiced opposition to the Long plan for no cotton planting in 1932.

"I do not think the Long plan is advisable, constitutional or enforceable," Mr. Coker stated last week. "The South should quickly put the whole situation before the Federal Farm Board by good, strong representation. The Farm Board has the power and resources to solve the situation if it would," he declared.

While the southern States were awaiting results of the legislative session in Texas, the victims of low cotton prices looked to the White House where President Hoover conferred with W. L. Clayton, of Anderson-Clayton & Co., Houston, Texas, Eugene Meyer, governor of the Federal Reserve Board, and other bankers, with a view to working out financial arrangements for promoting cotton exports. President Hoover, it is understood, feels that the need for establishing export credits is of more immediate importance than plans to curtail next year's acreage.

▸ Seidel to be Represented in Chattanooga

C. Walter Seidel, who was for 18 years affiliated with the Oscar Heineman Corp., and who recently opened his own business in Chicago, announces that he has concluded negotiations with French Campbell, Jr., formerly of the Standard Coosa Thatcher Co., to open an office in Chattanooga. This office will serve the southern territory for and in conjunction with Mr. Seidel.

Mr. Seidel is representing in the middle western territory E. Gerli & Co., Inc., for raw silk, the Duffy Silk Co. for commission throwing, Kahn & Feldman, Inc. for thrown silk and the Erie Dyeing & Processing Co. on dyed and twisted rayon, printed yarns, combination yarns, commission dyeing and printing.

With the exception of the Gerli account for raw silk, the other three accounts will also be under Mr. Seidel's jurisdiction in the southern territory, to be handled out of the newly opened office in Chattanooga by French Campbell, Jr.

▸ Silk Exchange 3 Years Old; Value Proved, Says Lewine

Commenting on the third anniversary of the National Raw Silk Exchange, which opened Sept. 11, 1928, Jerome Lewine, the president of the exchange, issued the following statement this week:

"The three years of continuous operation of the National Raw Silk Exchange have proved its value to the silk industry of the United States. Considering the unprecedented dullness in business and the world-wide depression, the exchange has experienced a remarkable growth. Almost every other exchange in the country, in fact, in the world, has witnessed an enormous reduction in turnover. However, on this exchange, the volume of transactions reached a new high record during the year just closed.

"The first year of operation showed a turnover of 165,565 bales of raw silk; the second year—257,215 bales and the year just closed—308,140 bales. (The trend of prices has been almost continually downward). During the three years, they have fallen over 50%, from $4.92 per lb. on Sept. 11, 1928, to $2.36 per lb. on Sept. 10, 1931. These figures, however, are not the highest or lowest reached. In Oct., 1928, raw silk reached a high level of $5.27 per lb. and in Oct., 1930, a low of $2.13.

"All of the present records for activity were made during the past year—daily turnover 5,730 bales—weekly, 14,750 bales—and monthly, 40,020 bales.

"Taking into consideration the adverse factors obtaining during most of its three years of existence, the exchange has performed remarkably well. It has filled a long felt economic need."

▸ New Bedford School Opens with Record Enrollment

With an entering class of more than 50, making a total enrollment approximately 125, the New Bedford (Mass.) Textile School established new figures when the day classes got under way last Monday, this being largest enrollment in the history of the institution, according to William Smith, principal. A

two-year course for grammar school graduates not old enough to go to work is meeting with a good response, this course having recently been started by the school head.

Another new departure is the secretarial course offered girls, with special emphasis on mill office work. The general cotton manufacturing course is the one recommended by Principal Smith, this course being specially designed to give the student a complete knowledge of the subject covered, while other courses over a three-year period are chemistry, dyeing and finishing, designing, carding and spinning, and hosiery.

Evening classes will start Sept. 28, along the same general lines as followed in past years. Mr. Smith has been associated with the school since 1904, being head of the carding and spinning department until 1922, when he became principal.

▸ Committee D-13 Proposes Revised Physical-Testing Methods

A report covering the revisions in physical-testing methods proposed at the March 12 meeting of Subcommittee B-1, Section 1, of Committee D-13 (the textile committee of the American Society for Testing Materials) was issued this week by William D. Appel, the subcommittee chairman. No actual revision is contemplated in the immediate future, as further discussions of the matter are to be held; but copies of the report are being sent to all members of D-13 in order that the subcommittee may be assisted by criticisms and suggestions from men directly interested in the various tests involved. One object in the proposed revisions is to provide the same wording in different specifications where the same method is required. Another is to avoid unnecessary variations in methods.

▸ Plan National Union of Silk Workers

Simultaneous with announcement of settlements being effected in 11 more broadsilk mills closed by the Paterson, N. J., strike, came the news this week that the two silk unions in the Paterson district which had directed the strike plan to form a nation-wide labor federation of all the silk workers in the country. The plans are still in an early stage but the aim is to have an organization similar in scope to the American Federation of Full-Fashioned Hosiery Workers. The new body may be called the American Federation of Silk Workers; it would be affiliated with the American Federation of Labor.

Leaders of the Amalgamated Associated Silk Workers and United Textile Workers' Union are known to have been discussing a plan for some time, tending toward a union of all silk workers in an autonomous body.

One of the major objectives of the new organization will be to unionize the workers in the dye shops of the country. About 85% of the dyeing, finishing, weighting and printing of silks in the United States is done in the Paterson district.

Efforts to settle the strike at the plant of M. Salzberg & Sons, Inc., Putnam, Conn., have collapsed because of the disagreement between the strikers and the owners as to the disposition of non-union workers now employed at the plant. The strikers voted to continue the strike. Charles Salzberg, one of the proprietors, refuses to discharge non-union men.

Wakefield Textile Co., South Kingston, R. I., has resumed normal operations following a walkout of spinners and weavers, due to a misunderstanding over certain changes in the spinning and weaving departments. When fully informed the men returned agreeably.

The Newmarket (N. H.) Mfg. Co. has petitioned the State Board of Arbitration & Conciliation to declare the strike which started in February, 1929, officially off. At an immediate hearing decision was reserved.

Jack Card Still Trying to Figure Hosiery Union's Wage-Cut

Editor, TEXTILE WORLD:

I flunked a course in logic once so you can realize the mental state I'm in after reading that the full-fashioned hosiery union recommends 30 to 45% wage-cuts to "stabilize" the industry. By what I imagine is called inverse reasoning, they claim that such a move will cause revolts in non-union plants and ultimately result in complete unionization of the industry.

"Join the union and get a wage-cut" may be the recruiting slogan.

Maybe it's like these "psychic" bids in contract bridge. I lost a partner and gained an enemy when I failed to understand that a two-spade bid over one no-trump meant "failing in spades"—or something like that. [Don't check me up too carefully; I can't even talk good bridge.]

JACK CARD.

▸ Tubize Chatillon's New Acetate Prices

Consistent with the reduction in cellulose acetate yarn prices announced last week, the following new list for acetates has been announced by Tubize Chatillon Corp.

Den.	Fil.	Skeins and Cones Natural and Tint	Spools	
45	13	$1.60	....
55	13	1.50	$1.65
75	20	1.40	1.55
100	26	1.30	1.45
120	26	1.10	1.25
150	40	1.00	1.15

Two and one-half and 5 turns twist are the same price. Ten cents per pound additional over skein prices is charged for 5- and 6-inch cops, excepting 150 denier on which the charge is 5c. Terms are 2%, 30 days F.O.B. the mill with minimum freight allowed to destination.

Statistical Position of Cotton Goods Improved During a Dull August

STATISTICAL reports of production, shipments and sales of carded cotton cloths during the month of August, 1931, made public Monday by the Association of Cotton Textile Merchants of New York, show shipments almost 9% in excess of production which helps maintain the market's healthy position. The figures cover a period of four weeks.

Production during August amounted to 209,050,000 yd., or at the rate of 52,262,000 yd. per week. This was 8.6% more than the seasonal low production rate in July.

Shipments during August were 227,644,000 yd., equivalent to 108.9% of production. New orders booked during the month amounted to 167,555,000 yd., or 80.1% of production.

Stocks on hand at the end of the month amounted to 250,855,000 yd., representing a decrease of 6.9% during the month. This again established a new low figure for stocks since these statistics became comparable on Jan. 1, 1928, and continued the steady reduction which has been going on since July 1, 1930. Many in the industry consider that present stocks are close to minimum, in view of the large number of mills and variety of fabrics covered by the statistics. The low figure for stocks on hand in 1928 was 367 millions of yards; in 1929 it was 345 millions; in 1930 is was 350 millions; and now it is 250 millions of yards.

Unfilled orders on Aug. 31, 1931, were 217,508,000 yd., representing a decrease of 21.6% during the month.

August sales in cotton textiles were held back by unsettled conditions as to raw cotton and by the tendency on the part of buyers to await the September cotton crop forecast, but the statistical position of the industry is still exceptionally strong because of the continued heavy shipments. For the last 14 months the consumption of goods has been consistently in excess of production, and the seasonal sales due within the next six to eight weeks should further improve the position of the mills.

▸ New Textile Trading Firm Formed in Durham, N. C.

Southern Sales & Commission Co., Inc., Durham, N. C., has been organized with authorized capital stock of $5,000, with $300 subscribed stock by A. H. Carr, W. F. Carr and D. St. Pierre, all of Durham. The charter of the new company grants it privelege to buy and sell all kinds of textile materials.

Overseers' Round-Table

THIS department offers a new subject for discussion each week and gives readers' comments on problems introduced during previous weeks. The subject which was opened four weeks ago is closed this week and a summary of contributed ideas is given on opposite page

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On Dealing with Beginners

Editor, Overseers' Round-Table:

BILL HAS the wrong attitude about apprenticeship. The days of working out an apprenticeship without some sort of wage are now lost in oblivion and have long become obsolete. Slavery has been abolished. Serving an apprenticeship without remuneration has become an absurdity, although in manufacturing there still remain threads of the old-school idea. A man with the same idea as Bill is a detriment to any sound, growing business. He is far more detrimental than the youngster who has just joined the company.

Pay the youngster and give him something to work for. If his ambitions are good, he will zealously put himself into the running; if he is not, it will soon be found that his chances for advancement are slim.

I have seen both of the ideas worked and I can say that the paying one has beaten the non-paying always. No conscientious and civilized man will work a wageless being nor can a wageless man be made to work. Give him something to aim at. Getting something for nothing cannot be done.

Time wasted is money wasted and a non-paid apprentice wastes both. Your material, time, and money would be foolishly spent on an old-fashioned and absolete idea. Pay and you will get paid.

Bill's ideas on this matter are selfish, small, and narrow, and come from a greedy Mainstreet mind.

I believe in paying a new man what he is worth; a short examination of some kind should be given each entrant and his salary should be based on merits as well as actual ability to grasp the situation confronting him.

WILFORD A. SUTTHILL,
President, Sutthill Novelty Co.

Editor, Overseers' Round-Table:

BY ALL means pay beginners while they are learning. Machinery has simplified so many textile operations that "learning" now means acquiring facility in running a machine. Generally this takes from a few days to a few weeks, instead of a few years as in the old days.

The practice of letting a friend "stand-in" with an experienced weaver and paying from $10 to $25 for the privilege of learning to weave is O.K. when the demand for weavers warrant such action. Pick and pick and others of the more highly skilled jacquards and cannot afford to have anybody "standing-in" and the learner cannot afford to spend the time required without pay. We found, in the silk mills, that these more skilled jobs were "picked-up" by

The Overseers Discuss Un

"ABOUT all the arguments I've heard against the 'dole,' as it is called in England, have come from those who would pay rather than receive," Superintendent Chase addressed the overseers, "and I'd like to hear something from you men who are so close to the workers, and who can reflect the average, American, working man's attitude. Do you think that unemployment insurance is sound and is justified by economic conditions?"

"Every time I hear anyone advocating this 'dole' business I want to take a swing at him," Bill responded warmly. "We're a country that prides itself on the independent spirit of its workers; that boasts of an equal chance for everybody, and may the best man win. You can't sell me on anything that would make me feel as though I were a poor, miserable cuss who has to be supported by the Government because I can't look after myself. I'll admit that I may get in a jam now and then when I go my own, independent way, but I'd a lot rather get in a jam once in a while and keep my independence than be one who cries and falls on the neck of the Government every time he's out of luck. You have this unemployment insurance business and you'll develop a regular sponger class who would rather draw the 'dole' than do honest work. What is worse, though, is the effect it would have on everybody. The way it is now, I have to fight my way in this world or I'll come pretty close to starving. The result is that I'm on my toes every minute, and the chances are that I'll get ahead because I *am* wide awake. You go putting through any plan where I'll get paid something when I'm out of a job and I can't help losing some of my drive, I'll say to myself that if worst comes to worst the Government will take care of me, so I'll get lazy. I won't even bother to talk about the expense of such a plan; what I'm interested in is the effect on me, and the effect on the rest of the gang. I don't want to be coddled, I don't want to be pauperized, I don't want to be given a nice meadow to loaf in like a replaced firehorse—I want to stand on my own two feet, and I'll take the breaks as they come."

"I must admit, Bill," Pete rejoined, "that you have put up an eloquent argument for independence of spirit. I admire your attitude and think it is one of the things that has made this country what it is; in fact I feel pretty much the same myself. However, I can admire independence and still vote

Unemployment Insurance

for unemployment insurance, because economic conditions have changed a lot lately. It was fine to have the stand-on-your-own-feet attitude when, if you got bounced from one job, you could go somewhere and get another, but it's an entirely different proposition when you can't get any sort of a job no matter how hard you try. The reason England has the 'dole' is that there simply weren't enough jobs to go around and the nation couldn't stand by and see a lot of people starve to death. There may be a lot of just criticism of the 'dole' and a lot of cheaters, but, to my way of thinking, England had to do something, and it was either private charity or public charity. When the thing gets big, private charity can't take care of it. Things aren't at such a pass in this country, but we have to be careful. If any large group of people are pretty frantic about where the next meal is coming from, something is going to happen; even a meek citizen is going to raise the roof if he is hungry. As far as I can see, this country may soon be in serious need of some way of taking care of the unemployed. I'm all in favor of looking at the thing honestly, and having individual concerns, and even whole industries, face the situation and set up unemployment insurance of one kind or another, as many have already done. If they don't, I'm afraid the clamor will get so loud that the Government will have to step in."

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Do *you* think that there should be unemployment insurance in this country?

Overseers and others are invited to discuss this and other questions brought up in the super's talks. Letters accepted and published will be paid for without regard to length. Brevity is desirable.

the more ambitious weavers being with pick and pick and jacquard artists when their own looms were having warps changed or idle.

An excellent and economical method of breaking in green help is to have one of the older employees as an instructor and turn each beginner over to him for training. When he says the beginner can make, say, 50% of standard production, he should be put on his own, but still have some supervision.

One of the most successful textile mills I know of, applied this principle with a training department for beginners separated from the main mill, an overseer or asst. supt. acting as supervising instructor.

By paying beginners, they feel that they are worth something and try to increase their worth to their employer. It also greatly reduces training expense due to lessened labor turnover. This latter fact probably is the main reason why practically all mills pay beginners or learners from the minute they report in the mill.

E. E. GAGNON,
Mech. Supt. U. S. Asbestos Division.

Editor, Overseers' Round-Table:

THE TEXTILE industries, in common with other industries, realize that youths and girls of the proper type have today many avenues before them, each one of which leads to a specified industry wherein there is payment during apprenticeship, and adequate rewards for ability and service.

It is their object, in the interests of efficiency, to attract the best possible workers; an object which can be attained only by offering generous working conditions, in return for which the company logically expects them to use every endeavor to further the interests of the company, by listening readily to their instructors, by doing well and quickly the tasks they are ordered to perform, and by fitting themselves for positions of greater responsibility and higher remuneration.

Paying a wage to a learner is the company's guarantee of good faith; an indication that it is prepared to carry out its part of the bargain. On the other hand, a boy is made to realize, at once, that a weekly wage imposes certain obligations. By this means he gains self-respect, and a desirable measure of stability as a paid worker of the company.

W. K.

On Pension Systems

Editor, Overseers' Round-Table:

I CERTAINLY DO believe that employers should make an allowance in their budgets for an old age or retirement pension. I am working for the State and we have a pension system which calls for assessment of each employee of 3% of his salary. This sum is put in a trust fund and a like amount deposited by the State. When a worker has reached an age of 60 years he retires at 50% pay provided he has been in the State's employ for 20 years. There is a graduated rating for those who retire under 20 years of service.

The employer should take into consideration the fact that the janitor or sweeper is just as important in a successful business as the highly paid executive. If a retirement fund is provided for one it should be for all.

E. LEWIS HUTCHINSON.

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Summary of Discussion on Paying Beginners

Opinion was practically unanimous that the old practice of having beginners work for nothing during the period of apprenticeship was not in keeping with modern business methods. It was stated that a weekly wage gave the beginner self-respect and a far better attitude toward the work. In addition, even though the pay were not in a class with that paid skilled workers, the beginner realized that the company was showing good faith in spending money on training and tried to act in god faith and give value.

NEWS about MEN

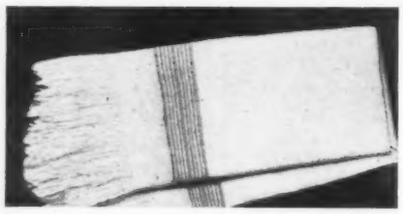
James I. Pritchett, president of the Riverside & Dan River Cotton Mills, Danville, Va., has been appointed by Governor Pollard as a member of the committee which will have charge of unemployment relief in Virginia.

Arthur R. Jones, president of Wassookeag Woolen Co., Keene, N. H., and treasurer of Keene (N. H.) Silk Fibre Mills, was named president of the New Hampshire Manufacturers' Association at its annual meeting at Rye Beach, N. H. This group includes over 400 of the State's leading manufacturers, with shoe and textile representatives prominent in the group. **Rowland B. Jacobs,** treasurer of the Dartmouth Mills of Everett-Norfolk Co., Lebanon, N. H., is the retiring president. **Lawrance B. Holt,** general superintendent of Scott & Williams, Inc., Laconia, N. H., manufacturers of hosiery and underwear machinery, was reelected vice-president of the association.

Dr. A. J. L. Moritz, vice-president American Enka Corp., Enka, N. C., in charge of operations at Enka, was presented with an American flag by the school children of Buncombe County, N. C., during the Labor Day celebration at the plant. The flag was made of rayon produced by the company, and the materials were purchased with a fund created by the contribution of one cent by each child, and was made by them. It was presented in recognition of the public service rendered by the Enka plant, a branch of the Dutch interests of the rayon industry at Arnheim, Holland. The program, which filled the entire day, was punctuated with field sports, baseball games, water contests and a dance. Attendance was estimated at 4,000, or more.

C. F. James, president of the Elizabeth James Mills, Marion, N. C., is now owner of the Hotel Marianna in Marion, having purchased it as an investment. After extensive improvements, he will probably lease it to experienced hotel operators.

John E. Edgerton, president of the Lebanon (Tenn.) Woolen Mills, has been appointed a member of the committee on cooperation with national groups and associations, of which **Eliot Wadsworth** has become director, appointed by **Walter S. Gifford,** director of the President's organization of unemployment relief. Mr. Gifford has selected 22 members of his advisory committee to serve with Mr. Wadsworth as members of the committee, of which Mr. Edgerton is one.



H. W. Springorum, secretary and treasurer of American Bemberg Corp., and American Glanzstoff Corp., returned from Europe last week on the North German Lloyd liner "Europa" after a vacation abroad.

R. D. Halliwell, secretary and advertising manager of Bliss, Fabyan & Co., Inc., New York, sailed for a trip through Europe. While abroad he expects to visit all the important style and fabric centers in England, France, Germany and Czechoslovakia, for the purpose of studying style and fabric trends.

Kemp P. Lewis, secretary and treasurer of Erwin Cotton Mills Co., Durham, N. C., has been requested by Governor Gardner to meet in conference with 19 other business men of North Carolina, in Raleigh, Sept. 18, to consider plans for the relief of the unemployed of the State. **W. D. Briggs,** former president of the North Carolina Cotton Manufacturers' Association is also on this committee.

A. L. Burch will be secretary of the Bradford Cotton Mills, Inc., Montgomery, Ala., which have been chartered to succeed the Montala Mfg. Co. Mr. Burch's name was mispelled in a recent news item, in connection with these mills, appearing in this magazine.

Walter H. Bradley, formerly treasurer of the Hill Mfg. Co., Lewiston, Me., and the Pepperell Mfg. Co., Biddeford, Me., has been elected treasurer of the Fisher Mfg. Co., Inc., Fisherville, Mass., fancy cotton goods, to succeed **Frederick P. Cabot,** who is now president. Mr. Bradley is also treasurer of the Winthrop (Me.) Mills Co., and has his headquarters at 53 State St., Boston.

Arthur H. Lowe, former treasurer of the Parkhill Mfg. Co., Fitchburg, Mass., which was taken over by the Amoskeag Mfg. Co., Manchester, N. H., has presented the city of Fitchburg with mill B, formerly owned by these companies, for use as a vocational trade school. The school committee has accepted the gift.

David Lindsay, treasurer, Spinners Processing Co., Spindale, N. C., an en-

A Home-Made Suit of Home-Grown Cotton

A bank president in a cotton suit, the cloth for which he made with his own hands from 35c. worth of cotton, attended the Old Settlers' Reunion at Holland's Lake, near Weatherford, Texas. His primary purpose is to demonstrate the spread in price between raw materials and manufactured goods and to set Texans thinking more about turning the State's raw materials into finished products within the State.

The banker referred to is G. A. Holland, chairman of the board of the Citizens National Bank of Weatherford. He is shown above in his home woven clothing and he holds in his hand at hat which he plaited from Parker County wheat straw.

Illustrated below him is a souvenir he kindly sent to TEXTILE WORLD. It is a fringed towel 24 by 30 inches and has the following unique history: On Friday morning Sept. 11 Mr. Holland went into his own cotton field and picked the necessary cotton with his own hands, had it ginned and carded, and himself spun, dyed and wove it. Less than six hours from time of picking, he posted the fabric by air mail for New York, where it was received Monday morning Sept. 14.

This fall Mr. Holland plans to have sufficient Parker County wool carded and then to spin and weave with his own hands a wool fabric for a suit.

thusiastic angler, was elected president of the Waltonian Council of North Caroline at its annual meeting in Raleigh, N. C., Sept. 8.

William L. Parkis, after 17 years at the spun silk plant of Cheney Bros., South Manchester, Conn., has severed his connections with the company. His capacity was as yarn merchandise manager. Mr. Parkis' plans are not yet complete, although he expects to continue in the field of yarn manufacture.

Albert Palmer, research assistant to the general manager of the Crompton & Knowles Loom Works, Worcester, Mass., gave a radio talk on "Research in Industry" over station WTAG, of that city on Sept. 10.

R. S. Porter, formerly manager of the Planters & Merchants Mills, Inc., New Braunfels, Tex., continues as manager of the newly organized company, New Braunfels Textile Mills, which purchased the old concern.

Robert R. Alexander has resigned his position as manager of the Homestead Woolen Mills, West Swazey, N. H. Mr. Alexander, who makes his home in Newport, N. H., plans a vacation before entering business again.

J. C. Cobb, recently connected with the Shambow Shuttle Co. sales force, and former secretary of the Southern Textile Association, is now overseer of No. 2 warp spinning at the Lancaster (S. C.) Cotton Mills.

Obituary

Joseph B. Jamieson

Joseph B. Jamieson, aged 79, treasurer of the J. B. Jamieson Co., Inc., cotton yarn merchants, Boston, died Monday in Newton, Mass. He was a graduate of Phillips Andover Academy, and began his business career as shipping clerk with Gardner, Brewer & Co., of Boston, and later was salesman for Buckingham & Paulson, of New York. He was a department manager for Abegg & Rusch, also of New York, and was later manager of the New England sales department of the New England Cotton Yarn Co. He was also treasurer of the Multiple Winding Co., and president of the Yale Knitting Co., Malden, Mass. He is survived by two sons and one daughter.

Frederick Swindells

Frederick Swindells, former treasurer of the Rock Mfg. Co., Rockville, Conn., died at his home in Runo, Nova Scotia, early this week. For the last eight years he had lived in Nova Scotia.

Henry Wainwright Howe

Henry Wainwright Howe, senior partner in Lawrence & Co., and a director of the Central Hanover Bank & Trust Co., died Tuesday at his home in New York, aged 66 years. Mr. Howe was born in Norwich, Conn., in 1875. He was graduated from Harvard University in 1897, and became associated with Lawrence & Co. in 1898, and continued in this firm until his death. He was a member of the New York Yacht Club, Eastern Yacht Club, American Yacht Club, Brook Club, Union Club, and Merchants Club. His widow and three sons survive.

Thomas Henry Smith

Thomas Henry Smith, 89 years old, for a long period of years proprietor of the Jamestown (N. Y.) Cotton Mills, died Sept. 6. He was born in England in 1841. In 1865, after several years apprenticeship Mr. Smith established a cotton spinning mill at Burnley which he operated for 14 years. He came to America in 1879, to look over the ground and in 1880, he had machinery shipped from England and established the mill in Jamestown which was operated until 1918, when the property was acquired by the Crescent Tool Co., and the cotton machinery sold to a Japanese concern. Mr. Smith was president of the company throughout its existence and was assisted by his son, Henry K. Smith.

R. C. Biberstein

R. C. Biberstein, architect and engineer, Charlotte, N. C., died at his home there Sept. 11 following a brief illness. Mr. Biberstein, who designed many southern cotton mills, had been in failing health for about four years. He was born in Texas, Dec. 2, 1859, the son of a German engineer who had settled in the Southwest. Following his graduation from Worcester (Mass.) Polytechnic Institute, Mr. Biberstein located in Charlotte, being employed at first by the Mecklenburg Iron Works. In 1892 he became connected with H. S. Chadwick who had opened the first office in Charlotte to handle the designing of textile mills. About 1903 Mr. Biberstein established his own organization and was engaged in industrial architecture and engineering work for more than 25 years. He is survived by three sons and on daughter.

Frank E. Norcross

Frank E. Norcross, secretary and treasurer of Standard Looms, Inc., died last week at his home in Spartanburg, S. C., after a lingering illness. He was a native of Massachusetts, and went to Spartanburg from Milford, where he was connected with the Hopedale Mfg. Co. Mr. Norcross, together with Jonas Northrup, organized Standard Looms, Inc., in 1928.

Peter Wood

Peter Wood, retired treasurer of the former Peter Wood Dyeing Co., Worcester, Mass., died in Richmond Hill, N. Y., on Sept. 11, after a long illness. He was engaged in business for many years in Worcester, retiring several years ago. He leaves three daughters and four sons, one of whom, Robert J., was president of the company. Funeral and burial was in Worcester.

Daniel William League

Daniel William League, formerly overseer of weaving, F. W. Poe Mfg. Co., Greenville, S. C., died at his home Sept. 8. He was a native of Greenville County and was widely known in textile circles of South Carolina. He retired from active work early this year. Mr. League is survived by his widow and 12 children.

Charles Gordon McGhie

Charles Gordon McGhie, president of the Guaranty Silk Dyeing & Finishing Co., Ltd., St. Catharines, Ont., Canada, died at his home in St. Catherines recently. Mr. McGhie was in his 63rd year.

James A. Quinn

James A. Quinn, foreman for the Watson-Williams Mfg. Co., Leicester, Mass., where he was employed for 62 years, died at his home in that town on Sept. 4, after an illness of several months. He was 77 years old, a native of the town and had held various town offices during his life.

Textile Calendar

Carolina Yarn Association, Second Annual Golf Tournament and Banquet, Sedgefield Inn and Country Club; Greensboro, N. C., Sept. 18 and 19, 1931.

Textile Operating Executives of Georgia, Fall Meeting, Georgia School of Technology, Atlanta, Ga., Sept. 25, 1931.

Southern Textile Association, Eastern Carolina Division, Fall Meeting, Roanoke Rapids, N. C., Oct. 2, 1931.

Textile Division, American Society of Mechanical Engineers, and Providence Section of the Society, Joint Meeting, Providence, R. I., Oct. 6, 1931.

National Association of Cotton Manufacturers, Annual Meeting, Providence-Biltmore Hotel, Providence, R. I., Oct. 7 and 8, 1931.

Southern Textile Association, Semi-Annual Meeting, Hotel Charlotte, Charlotte, N. C., Oct. 9 and 10, 1931.

Southern Textile Association, Master Mechanics Section, Fall Meeting, Gastonia, N. C., Oct. 16, 1931.

Southern Textile Association, Weavers' Section, Fall Meeting, Greenville, S. C., Nov. 13, 1931.

Silk Industry Week, Paterson, N. J., Nov. 14 to 21, 1931, including Silk Machinery Exposition, Nov. 14 to 21; National Silk Convention, Nov. 18 and 19; Paterson Silk Institute, Nov. 14.

Southern Textile Association, Spinners' Section (South Carolina), Fall Meeting, Nov. 20, 1931. (Place to be announced later.)

Cotton Manufacturers Association of North Carolina, Fall Meeting, Carolina Hotel, Pinehurst, N. C., Nov. 20 and 21, 1931.

American Association of Textile Chemists and Colorists, Annual Meeting, Boston, Mass., Dec. 4 and 5, 1931.

Knitting Arts Exhibition, 28th Annual Show, Commercial Museum, Philadelphia, April 11 to 15, 1932.

Southern Textile Exposition, Textile Hall, Greenville, S. C., Oct. 17 to 22, 1932.

NEWS about MILLS

Cotton

Indian Head Mills of Alabama, Cordova, have resumed operations after a shut down of several weeks, and 300 men and women have been given employment. Prospects are reported by the management as being brighter.

Gilman Bros. Co., Inc., Bozrah, Conn., has incorporated to manufacture shoddy, cotton felt, cotton waste and allied products. The company is capitalized for $50,000 and lists the following incorporators: Martin J. Gilman, Lawrence Gilman and Nathan Gilman, all of Bozrahville.

Athens (Ga.) Mfg. Co. is equipping its spinning frame rolls with Guillet tapered fitting necks.

Clark Thread Co., Newark, N. J., has leased its No. 3 Mill at East Newark, recently closed in connection with establishment of a mill at Austell, Ga., to the Gold Seal Electrical Co., Inc., Newark.

Hamilton-Wilco Mills, Inc., Ronda, N. C. It is announced that Dr. J. W. Choate and other stockholders of these mills, which have been closed for three years, are planning to reopen them shortly under new management. If present plans mature a new addition doubling the capacity of the plant will be added.

Selma (N. C.) Cotton Mills, a unit of the Mobile (Ala.) Cotton Mills, has inaugurated full night-work, but is using only men for this activity.

Adell Mfg. Co., Stony Point, N. C. The plant has been sold to W. H. Suttenfield, treasurer and secretary of Superior Yarn Mills, Inc., Statesville, N. C., and others of Statesville, for $20,000. The company has been reorganized under the name of **Adell Yarn Mills, Inc.,** and resumed operations Sept. 14.

Wade Mfg. Co., Wadesboro, N. C., recently awarded contract for the construction of warehouse, 82x165 ft., two stories and basement, to C. F. Ballard, general contractor.

Carolina Narrow Fabric Co., Winston-Salem, N. C., has leased the George E. Nissen Wagon Works factory and will soon begin the manufacture of electric insulating tape there.

Hollinger Mills Co., Carlisle, Pa., has work under way on the installation of additional equipment, and will add about 30 new workers to the force as soon as the machinery is ready. Orders on hand insure a capacity schedule for some weeks to come.

Forestdale (R. I.) Mfg. Co., The petition of Baylis G. Aldrich, treasurer, having been granted, a decree has been entered in Superior Court, Providence, dissolving the Forestdale Mfg. Co., a cotton mill corporation which owned and operated a mill at Forestdale for years. The action was taken in accordance with a vote of the majority of stockholders. The plant was sold at auction last winter.

**Indicates previous mention of project.*

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***East Providence Mills, Inc.,** Providence, R. I., have taken out a permit for a 1-story brick and steel mill addition, 80x95 ft., on Grosvenor Ave., to cost about $35,000, with equipment.

Pacific Mills, Hampton Dept., Columbia, S. C., recently purchased a new 200-spindle automatic spooler and a high speed warper from the Barber-Colman Co., Rockford, Ill. This unit will be installed in the Richland plant of Pacific Mills.

Lydia Cotton Mills, Clinton, S. C., recently purchased additional equipment, including 50 Draper Model E 40-in. looms and 3,000 Whitin ring spindles, which will increase the plant's production 8 to 10%.

McCallum & Robinson, Inc., New South Memphis, Tenn. A night shift of 20 has been added, to be kept working for at least six months, according to W. W. Robinson, president. There are 40 employees on the day shift.

San Antonio (Tex.) Cotton Mills have closed their branch mill at Kingsville, Tex., for an indefinite period.

Wool

Worumbo Mfg. Co., Lisbon Falls, Me. Increased orders have put the mill on full-time. The increase in production, however, has been accompanied by a 10% cut in wages.

North Berwick (Me.) Co. has received so many orders that to facilitate their filling, it has leased the weaving room of the Burleigh Mills from the Newichawanick Co. at South Berwick.

Julian S. Jacobs Co., Grafton, Mass. Julian S. Jacobs, and William J. McKelligan of Hyde Park, Mass., have organized this company to manufacture reworked wool of all grades. The plant formerly owned by the Grafton Woolen Mills has been purchased and it is expected that operations will be started by Oct. 1, although the office will be open by Sept. 21. Mr. Jacobs was formerly vice-president of the John T. Slack Corp., Springfield, Vt., with which company he was connected for 20 years. Mr. McKelligan has been in the shoddy industry for 28 years. He was at one time superintendent of T. H. Gray & Co., and later for Buckley & Mann, Hyde Park, Mass.

Forstmann & Huffmann Co. plant at Garfield, N. J., is working 24 hours a day. The finishing plant at Passaic is also very busy.

Botany Worsted Mills, Passaic, N. J., have been running 24 hours a day in their spinning department, and double shifts are being used on about 1,200 looms. Between 3,000 and 3,500 people are working at the Botany mills at the present time.

***Branch River Wool Combing Co.,** North Smithfield, R. I. The new wool sorting and storehouse building was completed last week and is occupied by the company. The building, about 95 x168 ft., 4 stories high, is an extension to the original storehouse.

Knit

***Campbell Silk Hosiery Mills,** Lambertville, N. J., are being operated by receivers, appointed a few months ago, and production is being increased. It is expected that plans for the reorganization of the company will be arranged and the mills will return to regular ownership and operation in the near future.

Juvenile Hosiery Mills, Greensboro, N. C., have obtained a permit for the erection of a small frame plant. The building will be used for the storage of used machinery and other accessories.

Caroledo Hosiery Co., Willow Grove, Pa., has changed its name to **New Britain Hosiery Co., Inc.,** according to papers filed by the Corporation Service Co., Wilmington, Del.

Davenport Hosiery Mills, Chattanooga, Tenn., will construct an additional story to their building, on East 11th Street, it is reported. Approximately $51,700 will be spent for this work, to start as soon as a permit can be secured. Robert & Co., Atlanta, Ga., architects, and the Capitol Construction Co., Atlanta, will do the construction work.

Standard Knitting Mills, Knoxville, Tenn., have adopted a capacity operating schedule, giving employment to about 1,300 persons in all departments, and will continue on that basis for a number of weeks to come.

Woolsey Knitting Mills, Shelbyville, Tenn., have begun superstructure for a new 1-story addition, 125x125 ft., and plan an expansion program as soon as the unit is ready for service.

***Warwick Hosiery Co.,** 798 Old Weston Rd., Toronto, Ont., has now started the manufacture of children's ribbed hosiery. Announcement of this new mill was made in Aug. 1 issue of TEXTILE WORLD as the Warren Hosiery Co. by mistake.

Silk

William Skinner & Sons, Holyoke, Mass., silk manufacturers, have resumed operations after a shutdown of 10 days.

Newmarket (N. H.) Mfg. Co., is operating day and night at full capacity, with about 40% more employees than in December, 1930.

Burlington (N. J.) Silk Mills, Inc., are arranging for resumption of operations before the close of the month, after a shut-down of about 3 weeks. They expect to employ close to the normal working force of 300 operators.

Crown Hat Band Mills, Inc., Haledon, N. J., have been incorporated with August Mueller as their agent and will do weaving, throwing and spinning. The principal incorporators are August and Max Mueller of Little Falls, N. J., Oscar Regan of Brooklyn, and Max Wendlinger of New York.

Tirrell Bros. Silk Corp., Milford, N. J., has reduced wages in all departments about 12½%, effective Sept. 14.

American Silk Spinning Co., Providence, R. I., is now making spun rayon yarns on the spun silk (Schappe) system. The rayon staple fiber employed is of long lengths such as can be used on spun silk machinery. Both single and plied yarns in a range of sizes from 30s-2 to 60s-2 are being made.

**Indicates previous mention of project.*

Rayon

***Belamose Corp.,** Rocky Hill, Conn. The plant has been working full time during the current depression, with the exception of two lay-off periods of two weeks each for repairs, without reducing the number of its employees or making wage cuts.

***Courtaulds (Canada) Ltd.,** Cornwall, Ont., have completed the construction of their new plant addition which will add 135,000 sq.ft. of floor space and will increase the production by 60%. The building is of the most modern kind, well lighted, and equipped with a ventilating and heating system of the most approved type.

Finishing

Greenpoint Dyeing & Winding Co., New York, has leased what was once the Kaltenbach & Stephens plant in Newark, N. J., from Velanday Corp., New York. The property was vacated when Kaltenbach & Stephens moved their plant to Allentown, Pa. Greenpoint Dyeing & Winding Co. will begin operations Oct. 1, employing about 100 operators. This number will be increased later in the year when their entire operations are centered in their new plant.

***Erie Dyeing & Processing Co.,** Cleveland, Ohio, has recently installed the latest type of multicolor yarn printing equipment made by the Briggs-Shaffner Co., of Winston-Salem, N. C.

Coff Dye Works, Germantown, Philadelphia. A spectacular fire of undetermined origin caused injuries to five persons and damaged this plant to the estimated extent of $150,000. In our Aug. 22 issue it was reported that H. N. Silver had been appointed temporary receiver.

Miscellaneous

Salem (Ore.) Linen Mills, formed to take over the Oregon Linen Mills, an old Salem concern, have been making strides toward modernizing the plant. F. J. Gilbraith, manager, who has just returned from an extended eastern trip, has announced that 16 of the latest type looms have been purchased from Crompton & Knowles Loom Works, Worcester, Mass., and that it will take about 12 days for the cars to reach Salem. A number of old looms at the mills have been reconditioned, but the majority of them will be scrapped as obsolete. Other new machinery was also purchased by Mr. Gilbraith. They are now spinning yarns and will not start weaving until the new equipment arrives. A total of 28 automatic looms will be in operation when the new machinery is installed.

TEXTILE WORLD Cotton and Wool Index Numbers

WOOL INDEX NUMBERS

Date	Wool	Tops	Yarns	Cloth	Group Aver.
July 31, 1914	100	100	100	100	100
1925					
January	215	213	211	229	221
April	219	234	230	241	235
July	216	217	216	239	227
August	217	214	217	231	223
October	216	212	212	227	220
1926					
January	215	213	211	229	221
April	181	193	198	211	202
July	173	184	189	202	193
August	176	181	190	199	191
October	178	186	193	197	192
1927					
January	178	187	190	197	191
April	177	182	184	193	188
July	180	183	183	193	188
August	180	183	185	193	188
October	185	185	189	194	190
1928					
January	194	193	186	195	192
April	199	206	198	198	199
July	204	206	203	197	200
August	200	201	203	195	199
October	197	197	203	198	199
1929					
January	199	198	201	198	199
April	187	189	198	197	195
July	169	170	188	197	188
August	168	172	188	211	195
October	164½	169	188	197	187
1930					
January	148	161	177	197	181
April	127	139	164	186	167
July	125	135	158	184	163
August	125	135	158	200	171
October	124	135	154	180	161
1931					
January	112	127	148	178	156
February	106	122	143	178	153
March	101	112	139	174	147
April	101	112	134	167	143
May	100	111	134	162	140
June	97	110	134	162	140
July	98	111	134	162	140
August	99	111	130	153	136

THE August cotton indexes show marked declines from their July levels, thus resuming their long-continued retreat which was temporarily halted during the latter month. Raw wool was up one point for the month, tops were unchanged, while worsted yarns and cloth were off.

Raw cotton at 58 for August established another record low and was off 17 points from the July average. Yarns were off 7 points, gray goods, 10 points, and colored goods 5 points. The figures for the fourth week of August were even lower than the averages for the month; they were as follows: Cotton, 57; yarn, 86; gray goods, 84; colored goods, 115.

The strength in wool and top values was one of the bright spots in an otherwise drab statistical picture. During August the wool index gained one point to 99, while tops were unchanged at 111. In the last two weeks of the month the raw material advanced an additional point to 100, the 1914 basis. Worsted yarns failed to reflect this strong showing and fell off throughout the month until in the last week they touched 127 or 7 points below the July average. Wool cloths show a 9 point decrease owing to the lower prices named by manufacturers for next spring.

Inquiries regarding interpretation and use of these index numbers may be addressed to TEXTILE WORLD, Statistical Dept., 1427 Statler Bldg., Boston, Mass.

COTTON INDEX NUMBERS

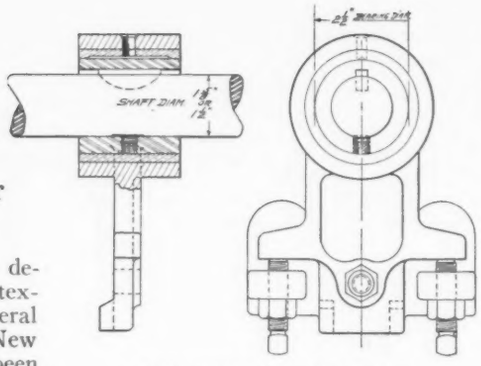
Date	Cotton	Yarns	Gray Goods	Colored Goods	Aver. for Cloths	Group Average
July 31, 1914	100	100	100	100	100	100
1925						
January	192	197	195	173	184	187
April	196	194	193	180	187	188
July	197	183	185	176	181	182
August	191	186	188	176	182	183
October	174	189	193	178	186	186
1926						
January	167	175	177	162	170	171
April	153	163	161	155	158	159
July	149	149	151	141	146	147
August	149	156	157	141	149	150
October	106	141	147	144	146	143
1927						
January	107	134	140	140	140	138
April	118	136	143	142	143	140
July	143	149	156	145	151	150
August	163	169	175	151	163	164
October	168	176	184	169	176	176
1928						
January	151	163	166	166	166	165
April	164	160	160	165	162½	162
July	174	167	165	168	166½	167
August	154	161	161	168	165	164
October	157	161	162	164	163	162
1929						
January	162	166	158	169	163½	164
April	163½	164	157	173	165	165
July	149	160	149	166	158	158
August	149	160	153	166	160	159
October	147	160½	155	161	158	158
1930						
January	138	149	141	157	149	149
April	131	139	129	156	143	142
July	105	120	119	142	130	128
August	96	115	114	142	128	124
October	85	110	115	125	120	117
1931						
January	82	102	107	124	115	112
February	88	104	106	124	115	112
March	87	102	109	125	117	113
April	82	100	106	125	116	111
May	75	98	99	125	112	108
June	72	94	95	122	109	104
July	75	97	97	120	109	105
August	58	90	87	115	101	98

New Machinery *and* Processes

Ceramic Equipment for Textile Mills

AN acid-proof ceramic material developed specifically for use in textile mills is announced by General Ceramics Co., 71 West 35th St., New York. This product, which has been put on the market under the name of Pyrotone, is a soft, porous body designed to withstand severe thermal shock. The surface is covered with a thick dense glaze, which is bright and smooth, non-absorbent, and corrosion resisting. It is stated that since the glaze has approximately the same coefficient of expansion as the body, the formation of fine haircracks in the glaze, is prevented. This material has been in use in Europe for a few years and has been imported into this country in the form of rolls. Arrangements are now being completed for making it on this side and the American product will soon be available.

The chief advantage cited for this material is that it permits fabrication of corrosion-resisting equipment, even in large sizes, which will withstand rapid temperature changes without damage. This property widens the possibilities for the application of ceramic products, permitting the use of live steam for heating solutions contained in equipment made of Pyrotone.

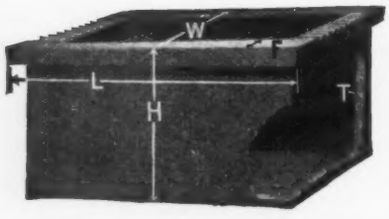


Adjustable size-roll bearing for slashers

In accompanying illustrations are shown rolls and tanks constructed from this material. In the case of the rolls, the mounting is so arranged as to take up the difference in expansion between the ceramic ware and the metal shaft supporting it. Other types of equipment suitable for handling acids, bleaching solutions, and similar corrosive solutions are available.

In order to test the serviceability of Pyrotone tanks for textile purposes, the manufacturers have subjected them experimentally to conditions considerably more severe than those met with in the mill. Thus, a Pyrotone tank 48x40x32 in., inside dimensions, was filled to a depth of 24 in. with cold water (4° C.). The water was brought to the boiling point in 10 min. by the injection of steam. One side of the tank was then sprayed with water until that side was quite cold, the other sides remaining hot. The contents of the tank were then siphoned off, and the hot tank immediately filled with cold water. It is stated that the tank withstood this rigorous treatment repeatedly without damage.

Pyrotone roll



Acid-proof tank designed to withstand severe thermal shock

Container for handling corrosive solutions used in textile mills

Roll Bearings for Slashers

THE bearings supporting the size roll on a slasher work under very adverse conditions. With this thought in mind, Saco-Lowell Shops, 147 Milk St., Boston, have developed an adjustable-type bearing having a large projected area, and which is said to meet conditions at this point successfully.

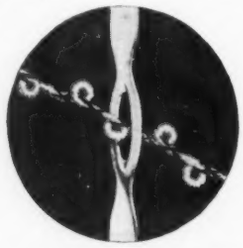
Because lubrication is difficult, and due to the fact that shaft and bearings are heated by the boiling size, wear on the bearing is inevitable. However, adjustment of the bearing will counteract this effect and will prevent the roll from dropping down and cutting into the packing gland. This dropping of the roll also allows the hot size to leak out, and causes the gears to wear excessively. All these faults are said to be prevented by careful attention to and adjustment of these bearings.

Heddle for Knobby Yarns

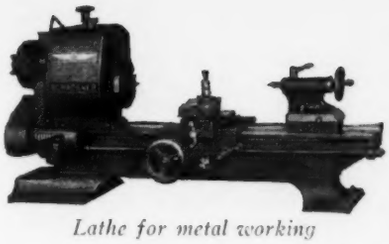
GROWING popularity of fabrics made from knobby yarns has stimulated the Steel Heddle Mfg. Co., 2100 W. Allegheny Ave., Philadelphia, to develop a special type of heddle applicable to this kind of work. To permit the free passage of the irregular warp threads and thus eliminate danger of chafing and obstruction, the eye of the heddle is made especially large and is given almost a half turn in the harness. It is stated by the manufacturers that this new design has solved the problem of handling this type of yarn and that uninterrupted production is assured.

Roving Traverse for Spinning

AN IMPROVED design for the roving traverse motion on spinning frames has been announced by Saco-Lowell Shops, 147 Milk St., Boston.



Large heddle eye facilitates handling of novelty yarn



Lathe for metal working

This motion is said to embody in its design many features which improve the operation of this assembly.

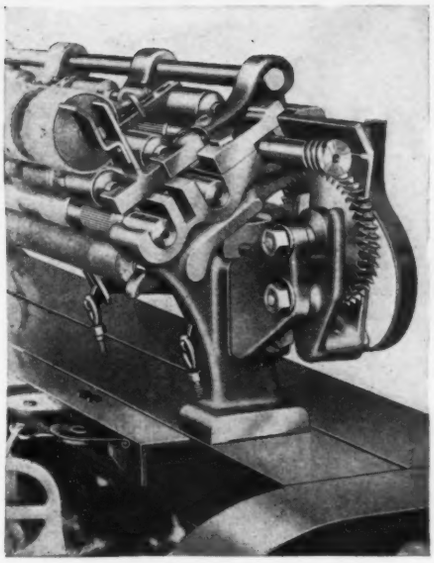
In addition to the improvements in basic design which permit the use of stronger worm and gears, means are provided to quickly effect accurate adjustment of the traverse. It is cited that the new design assures a rapid change at the reversing point and therefore eliminates any tendency to dwell at this point. These results are accomplished without sacrificing any of the advantages of the variable traverse.

The new design, together with the refinements in construction of the roving guides and roving rods, is standard equipment on all new spinning frames made by the company.

Lathes

TWO new lathes, Models B and C, have been placed on the market recently by the General Radial Drill Co., Cincinnati, Ohio. These two new tools are designed primarily for manual-training service. Model B is a metal-working lathe, and Model C a speed lathe for wood work. Both employ the Gibbs V-disk transmission and their general construction is much the same.

Model B has a swing of 11¼ in., and



Dwell is eliminated with new traverse motion

is made in 4, 5, and 5½ ft. lengths of bed, bench, or floor type. The head is of enclosed design. A built-in motor drives a back cone, and this cone in turn drives the spindle cone through a Gibbs disk mounted as an idler between these cones. A star knob is mounted on top of the head which controls the speeds. There are six spindle speeds—67 to 580 r.p.m. There are no exposed moving parts, except the spindle. All bearings in the head are of the ball-bearing type. The spindle runs on angular contact bearings which are adjustable to wear. Forty thread changes are available, and the compound may be swiveled to any angle.

In general construction, Model C is the same as Model B; the speeds, however, are much higher. The swing over the bed is 12 in., and the tool is made in 4, 5, 5½, and 6 ft. lengths of bed.

Single clutch—sectioned

Friction Clutch

FEATURES emphasized in an improved friction clutch introduced recently by the Carlyle Johnson Machine Co., Manchester, Conn., are simplified construction, compactness, quietness, cleanliness, and safety. An additional feature, where customers so desire or circumstances demand, is the facing of the outside diameter of the expansion ring with a special heat-resisting material. The clutch, which is called the Super-Johnson clutch, is built for drives subject to high speeds, heavy starting loads and excessive slipping and excessive engaging per hour or day. It is stated that the frictions can run dry as well as in oil. Working parts of the clutch are of chrome-nickel-steel, adding to the strength, reliability, and life of the unit. A locking device in the adjustment holds it secure and furthers the reliability of its operation. The clutch is manufactured in a variety of sizes and types to permit wide application.

New Dyestuffs

SULFANTHRENE BROWN G PASTE, a vat color of particular interest to the printing trade, has recently been placed on the market by E. I. Du Pont de Nemours & Co., Wilmington, Del. This product yields bluer shades than Leucosol Brown 3R Double Paste for printing. In addition to its use for printing on cotton, rayon, and silk, Sulfanthrene Brown G is said to be equally valuable for dyeing each of these fibers, the resultant shades possessing even better fastness than usual for a dyestuff of the Sulfanthrene type. It may be used in combinations to produce tans and many shades of brown. An advantage cited for this dyestuff is that it makes available full shades of brown of good fastness to light and laundering at a very low cost.

The following new products have been announced recently by General Dyestuff Corp., 230 Fifth Ave., New York:

HYDRON BLUE RR POWDER is a vat color which, in shade and fastness properties, corresponds to HYDRON BLUE R; but is more brilliant and redder in shade. Like the other members of the Hydron range, it is used for the dyeing of cotton in all stages of processing, being equally suitable for dyeing in the open vat, jig, or machine. In view of its good leveling properties, it is also of value for continuous dyeing. HYDRON BLUE RR is of particular interest for the production of dyeings of good fastness to light and washing for aprons, overalls, and the like. It is dyed either from the hydro-sulfite vat or by the mixed hydrosulfite-sodium sulfite process.

BENZO BLUE RWA is a bright color distinguished for its bright shade in direct dyeings, its good fastness to light and to washing when aftertreated with copper and chrome, and its value for the dyeing of silk and of mixed fibers. The product dyes level, possesses good solubility, and is suitable for padding. Benzo Blue RWA is well suited for the dyeing of pure and tin-weighted silk. Such dyeings can be discharged easily to a clear white with Rongalite C. In the dyeing of union goods (cotton and wool) the same depth and shade are produced on both fibers. Full and uniform shades are also obtained on cotton and silk, as well as on wool and silk mixtures.

CELLITON RED BROWN 5R POWDER is a homogeneous dyestuff for cellulose acetate. Like the other brands of this class, this product is dyed from a soap bath. The dyeings possess good fastness to light, acid, and perspiration; very good fastness to water and washing; and excellent fastness to scrooping. In combination with other dyestuffs of the same class, CELLITON RED BROWN 5R dyes compound shades of very good levelness. CELLITON RED BROWN 5R is not recommended for the production of print-on styles, but is suitable for discharge printing, as it gives pure white discharges.

NAPHTOL AS-LT belongs to the readily soluble and easily washed out brands, and in combination with FAST RED TR BASE it yields a brilliant bluish red shade, closely resembling turkey red, of excellent fastness to washing and chlorine and of very good fastness to light. In conjunction with other Fast Color Bases; e.g., VARIAMINE BLUE B and FAST CORINTH LB BASE, NAPHTOL AS-LT also yields very fast prints.

The red dyeings obtained with NAPHTOL AS-LT and FAST RED TR BASE are very readily dischargeable to a white; the colored discharges obtainable with vat dyestuffs excel by reason of their great clearness and brilliancy, so that it is possible to produce imitations of the well-known turkey red discharge and Alizarine pink styles of excellent fastness and beauty. Attention is also drawn to the fact that by the simultaneous printing of the diazo compound of FAST RED TR BASE and INDANTHREN dyestuffs on the prepared goods, it is possible to obtain very fast, beautiful, full red, lacking in the INDANTHREN range.

Questions . . . *and* Answers

Bleaching Knitting Yarns

Technical Editor:

I am very much interested in the TEXTILE WORLD *article of July 25 in reference to bleaching knitting yarns. I note that you are using as a scouring bleach 3% olive fig soap, 1% of tri-sodium phosphate, 1% of scouring oil, and 1% protective colloid. We use about eight pounds of a soap containing olive, cocoanut, and palm oils (the majority palm oil), and about ten pounds of fluff soda ash after the yarn is rinsed. Seemingly your scouring recipe is of a milder nature than the one we are using. Could you give us an idea where we could obtain the olive fig soap; what the make-up of the scouring oil is, and where we could obtain it; and the same of the protective colloid? A great deal of the yarn we dye is made up of one-quarter to three-eighths blood stock. Would we get as thorough scouring with your formula as with ours? Would you recommend that we use yours instead of ours in order to give us a more fluffy yarn?*

We have been trying to obtain a process of bleaching whereby the sulfur house in which the sulfurizing is done (after the peroxide bleach) could be omitted. In other words we have been trying to obtain a satisfactory bleach in a double peroxide bath, but as yet have not been able to obtain one which comes up to the standard we wish to maintain.

We are endeavoring to obtain a medium bleach on the knitting yarns which are subsequently to be dyed pink and blue for the infants' wear trade. The bleaching is done in the Klauder-Weldon machine and we would prefer to use some other bleaching agent than peroxide as this is affected by the metal in the machine. I had in mind some process similar to that used in the bleaching of cotton in a permanganate bath. There has been quite a bit of complaint on pink and blue which have been sulfurized, on account of the streaked dyeing and also a general fading out of the color due to the continued action of the sulfur.

If you can suggest any process whereby we may obtain a mild bleach, as outlined herein, we would appreciate your sending us details of the process immediately. (7670)

We note from the above that you are using 8 lb. of soap and 10 lb. of soda ash in the scouring of your knitting yarns. We presume that you are using this amount to every 100 lb. of stock. If so we believe that your scour is considerably too vigorous for wool that is to be subsequently bleached. Wool will stand but a certain amount of alkali and bleaching chemicals, after which it partakes of a brownish cast and a lifeless appearance. It must be remembered that the wool fiber in the yarn has already been scoured in the raw stock; and for the best white, a scouring just sufficient to remove the oils and dirt absorbed in the carding and spinning operations should be given.

We believe the scouring recipe referred to of 3% neutral olive fig soap, 1% tri-sodium phosphate, 1% scouring oil, and 1% protective colloid should give you better results than the recipe you are using; and this should give you decidedly fluffier finish. We prefer an olive soap for scouring before bleaching, as cocoanut and palm oils are liable to leave odors in the material, and being harder to rinse out (especially in waters containing lime or magnesium), may in themselves cause streaky dyeing.

For the best white on woolen yarns, the so-called double bleach of peroxide and sulphur cannot be excelled; and for the fluffiest finish, the straight peroxide bleach should be used.

It is often advisable to scour woolen yarns in a machine of the Klauder-Weldon type and to bleach in a stationary cypress vat equipped with a false bottom and a lead heating coil—using hydrogen peroxide as the bleaching agent. However, should you prefer to use the permanganate process, satisfactory results can be obtained as follows:

The yarns are well scoured and thoroughly rinsed with warm water—the temperature should never be raised over 120° F—and finally a cold rinse is given. This is followed by a bleach as indicated below.

Immerse in a potassium permanganate solution (2½ lb. to 100 gal. of cold water). Make certain the permanganate, to which has been added 2 lb. of sulphuric acid, is completely dissolved. Keep immersed for about two hours; then rinse well and enter into a bath containing 2 to 4% bisulphite of soda. Rinse the material well from this solution, treat in water slightly acidulated, and rinse thoroughly again. The time of the permanganate immersion may be cut by doubling the strength of the solution to 5 lb. permanganate, the acid remaining the same.

▼

Iron Stains on Dyed Fabric

Technical Editor:

You will find enclosed some samples of knitted fabrics showing brown spots which we have been getting recently in some of our dyed material.

Could you tell us what these spots are and what may be the cause of them? (7668)

An examination of the brown streaks and spots on the dyed rayon cloth indicates the presence of iron. It is our opinion that the spots are due to an iron soap. This soap is formed when an iron compound (for example, chloride or sulphate) comes into contact with a soap solution. This can happen in the scouring or in the dyeing, if soap is used. Sometimes the iron compound is on the cloth and the soap is in the water in the tub. At other times the soap is on the cloth and the iron is in the tub. Or possibly the reaction takes place in the water which contains the soap and the iron; iron soap is formed, settles out onto the sides or bottom of the tub, and the cloth rubs against it and picks it up, causing these spots. A check for any rusty iron parts should aid you in solving this problem. Usually these brown spots can be removed in a warm water wash. If water alone does not remove them, add a small amount of soap to the bath.

▼

Finishing Crepe-back Satins

Technical Editor:

Can you let me have information as to the types of machines and the finishes employed in finishing acetate crepe-back satins? (7665)

Crepe-back satins, after dyeing, are best extracted at full width over a suction extractor and batched into a roll.

It is advisable at this point to exert some tension on the fabric as this tends to draw the warp threads closely together and aids in giving a satisfactory finished effect.

The fabric is next dried over a crepe dryer. This machine consists of a series of endless nets upon which the cloth

rides, falling at the reversing point of the net to the next one below until the bottom net delivers the fully dried cloth. In the drying, care must be observed that the goods are always slack on the nets and between the nets. In this way the full crepeing effect of the filling will be obtained, and no net marks will appear in the finished goods. If the goods are stretched over the ends of the nets due to poor regulation of the take-up mechanism, the knots in the nets will impress the goods; and these marks are very difficult to remove once they are dried in. This applies particularly to rayon warp materials. A corrective for this defect, if it does occur, is to wet out the goods thoroughly in warm water, let stand a few hours, and re-dry with care to prevent recurrence of the trouble.

After drying, the goods should be conditioned with steam at the head of a tenter frame and run through the tenter to give the required width and even up the selvages. Tension at this point is also desirable to aid in perfecting the satin back.

The goods are now ready for calendering. Calendering is carried out on a conventional silk calender with three rolls, two of wool felt, and the center roll of chilled steel. It is advisable that the center roll be heated by steam to a temperature of about 170° C. The goods are passed through both nips and rolled up without undue tension. At this point, tension will tend to reduce the finished width and is of no benefit.

After this processing, the fabric should be soft and drapy with a good satin face, well closed, and possessing a good hand for the purposes to which it is put.

▼

Shrinkage of ¼-Blood Stock

Technical Editor:

Will you kindly give us the following information: In knitting bathing suits from high quarter-blood yarn, what normal shrinkage should be expected. That is, from 100 lb. of yarn in the oil, how many pounds of finished cloth should we get? We cone the yarn ourselves, and the waste from this is less than one-half of one per cent. What we are trying to find out is how much weight the yarn is likely to lose in a normal atmosphere from the time it is put into the dye until it comes off our machine as cloth.

We also have several rib bathing-suit machines, about 8½ cut, and are considering changing them over to 11 cut. Can you tell us what width cloth we would get on these machines after making the change. The widths we are getting now are 11 in., 12 in., 13½ in., 14½ in., 15½ in., 17 in., and 19 in. (7667)

According to the records available, a quarter-blood wool of the type you are using is likely to lose from 15 to 25% through shrinkage. Using these figures as a basis, it will be seen that from 75 to 85 lb. of finished goods should be made from 100 lb. of wool. The loss from boil-off in the manufacture of woolen materials is a considerable quantity and each shipment of yarn should be checked in order to determine the extent of this.

In changing from 8½ cut to 11 cut machines you will increase your cloth width in direct proportion provided the same yarn is used. In order that you may see the direct relationships the following table has been prepared:

Cut	Cloth Widths in Inches						
8½	11	12	13½	14½	14½	17	19
11	14½	15½	17½	18¾	20	22	24½

These estimated widths are based on the assumption that the 11-cut cylinders are of the same diameter as the old and that the same yarn is used. It is, however, not likely that the yarn number most suited to the 8½-cut work would be found suitable for the 11-cut work. The cut, strictly speaking, has no influence on the cloth width. A cylinder containing 1,728 needles with 11 cuts per inch produces a cloth equal in width to a cylinder containing the same number of needles spaced 8½ cuts per inch. What you will probably do is to use a finer yarn with the new cut to preserve weight. In this case the width may be kept the same if it is so desired.

▼

Green Shade on Dyeing Acetate Yarn

Technical Editor:

We are having some trouble dyeing a green shade with S.R.A. dyes on acetate yarn and we should appreciate your assistance on this problem.

Our problem is producing both even dyeing and good winding qualities. It seems that by eliminating one fault we run into another. (1) We are using S.R.A. Blue IV and S.R.A. Golden Yellow XI and IX, 1.5 grams per liter of solid soap (red-oil soap) 4 c.c. per liter of Celascour, and ¼ gram per liter of soda ash.

(2) We are also using a second recipe as follows: ¼ gram per liter of solid soap, 8 c.c. per liter of Celascour, and ¼ gram per liter of soda ash, with the same dyestuffs.

By using the first formula we have found that the winding trouble is overcome, but the dyeing is uneven; and by using the second recipe, we find that the yarn becomes much more evenly dyed, but results in the skeins matting and sticking together at the lease bands.

Inquiries should give the fullest information possible; and if damaged material is involved, a sample should be sent. We give no consideration to anonymous inquiries and do not undertake routine analysis of yarn or fabric, or investigation involving unusual expense.

Our dyestuff is added in four parts raising the temperature at each addition. We finish our yarn in an olive-oil emulsion. The temperature at the start is 120° F.; this is raised slowly to 170° F. (7673)

Apparently you have taken proper steps to eliminate uneven dyeing by increasing the 4 c.c. per liter of Celascour used in the first formula to 8 c.c. in the second. The main problem, therefore, is to modify the dyeing operation in such a way as to avoid the matting and sticking together of the skeins at the lease bands. We believe that more careful manipulation of the yarn will improve its winding qualities. An article on "Dyeing Acetate Yarn," which appeared in the March 21, 1931, issue of TEXTILE WORLD, describes in detail the measures to be taken to insure best results.

While proper handling of the yarn is imperative, it is quite possible that a slight modification of your second formula will give even dyeing, and at the same time lessen the tendency towards matting. For example, olive-oil soap is often employed with the S.R.A. colors, from ½ to 1 gal. per liter often being needed to prevent sticking at the lease bands. Again, use of a small quantity of turkey red oil or Celascour to assist in dissolving the dyestuffs is often of advantage in preventing uneven dyeing. A few experiments with trial lots will indicate whether these modifications are desirable. If it is possible to obtain the desired shade by using two colors (S.R.A. Blue IV and S.R.A. Golden Yellow XI), it will prove advantageous from the standpoint of fastness.

We assume that the olive-oil emulsion which you are using contains turkey red oil (neutralized with caustic soda). This type of emulsion is satisfactory for finishing acetate yarn, but the addition of a small amount of Feculose to the finishing bath often assists in securing good winding qualities.

▼

Evenness in Stocking

Technical Editor:

Would like to have you advise us which will make a more even stocking, one end of twelve threads or two ends of six threads. (7666)

If the two ends of six-thread are run through the same yarn finger together, the variable tension on the two cones will cause the two ends to cross or twist at variable intervals and will make a much more uneven fabric than a single end of twelve-thread.

If the two ends of six-thread should be run through separate yarn fingers set up for plating and the plating were perfect there would be little difference in the evenness. There would, however, be a difference in the texture of the fabric. The plated fabric would appear heavier or more closely knit because of the spreading or separation of the two parallel threads. For a uniform texture and an elastic-knitted stitch the single end would be preferable and would be much easier to manufacture.

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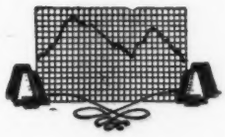
◆ *Survey of Fabric, Knit Goods, Yarn and Raw Material Markets* ◆

TEXTILE WORLD ANALYST



Only Seasonal Gains; Silk Likely to Remain Low

By Dr. L. H. Haney

WE are impressed with the amount of rumor and mystery concerning the silk situation. For example there is the rumor that the Japanese custody silk has been deteriorating seriously. Reelers are also said to have sold short, counting on cheap cocoons, while now they find high cocoon prices; this is supposed to have caused them to reduce operations. Little statistical evidence, however, of a diminishing supply of silk appears; and even if the report is true it would only postpone the reelers' troubles, while at the same time stimulating cocoon production. Reports of shortages of raw silk at domestic mills also are difficult to understand in view of the relatively heavy "deliveries."

It seems well to stick to the plain facts of the continued world visible supply which is close to record proportions, the general business depression, and the very low prices of cotton and rayon. The various factors of current importance pertaining to the raw silk market may be summed up as follows:

Bull Points

1. Unfavorable weather has reduced the Japanese autumn cocoon crop, perhaps as much as 25% below last year; much damage in China and sub-normal production there; Japanese cocoons selling at 25 to 30 kake.
2. The Japanese policy of holding silk for domestic manufacturers appears to relieve the situation as to export pressure.
3. The good export movement from Japan and the firm tone of the Japanese primary markets.
4. Scarcity of some of the higher grades of silk in the United States.
5. Strike settlements on a reduced wage-rate basis reported near.
6. Stocks of silk goods reported to be 20% below a year ago at the end of July.
7. A good demand for velvets and satins reported, with cutters and retailers showing increased interest.
8. Broad silk prices steadier; silk manufacturers proceeding more cautiously in keeping production adjusted to demand.
9. Hosiery moving at a fair rate, and gradual improvement apparent in this branch of the industry.

Bear Points

1. The world ratio of demand to supply is sub-normal according to the Raw Silk Exchange.
2. Japanese stocks are above a year ago, and the August into-sight movement larger; the two months total into-sight about the same as last year.
3. The domestic statistical position is weaker as a result of heavy imports; stocks increased sharply in August while deliveries were somewhat below anticipations.
4. The European silk industry is much depressed; consumption outside the United States low and under a year ago.
5. Some resale silk has appeared at low prices.
6. Sales of silk goods, in yards, decreased a little more than usual in July.
7. Cloth prices continue much below replacement costs, and replacement margins declined sharply in July; no change appears in the attitude of buyers who mostly appear to consider prices too high; absence of forward buying.
8. Reduction in rayon prices (acetate); a huge cotton crop and very low prices.
9. Competition of woolens in women's wear.
10. General business depression and continued declines in commodity price averages.

Statistical Position

Clearly the outstanding point in the August Silk Association figures was the jump in imports, although this had been foreshadowed by the large quantity in transit at the end of July. The figure of 58,411 bales, though 14.2% above August last year, was not particularly large when taken alone. It was below the same month in 1927, 1928 and 1929. In comparison with current consumption, or even with estimated deliveries, however, it was very large. For example, it was 25% above August deliveries, a ratio which has been exceeded in recent years only in 1927. Moreover, the quantity in transit was reduced but little, remaining over 40,000 bales at the end of August.

The result was an accumulation of stocks at New York at a rate somewhat greater than usual even in August, the figure rising from 29,900 bales to 41,800. This quantity is about average for the season at 90% of current deliveries. Certainly there is no shortage in the total stocks.

Naturally, with stocks up nearly 12,000 bales, the Silk Association's estimate of deliveries made a disappointing showing. The figure of 46,454 bales indicated mill takings 11% above a year ago, but this was *less than a normal seasonal gain over July.* In fact, August deliveries were at a rate only 87% of the average during the years 1927-1929, inclusive,

Summary: **Despite some seasonal improvement in the silk business here, reduced Japanese production of raw silk, and the maintenance of a firm position as to "custody" silk there, the general depression, a weakened statistical position, style uncertainty, and cheap cotton and rayon, seem likely to keep silk prices down and bring some renewed weakness.**

The analysis and forecast by Dr. Lewis H. Haney, director, New York University, Business Research Bureau, which regularly appears on this page, considers various branches of the textile industry from week to week. The conclusions reached in the Analyst are mostly forecasts and generally apply to a time two or three months ahead. The Analyst is based on statistical data and does not reflect temporary trade sentiment.

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and except for April were the lowest in the last 12 months, considering the season.

At the same time, stocks at Yokohama increased 5,000 bales and those at Kobe remained unchanged. The total for Japanese ports at 147,800 bales compares with 145,000 bales a year ago. The net result is a world visible supply which increased about as much in August as it did last year and came to within 1,000 bales of the same figure. The world visible promises to approach record figures this month.

Our usual comparison of combined stocks at New York and Yokohama with the rate of domestic machinery activity shows more unfavorable results this month. The average combined stocks in the last three months increased more than usual for the season and were 158% above the average of recent years. On the other hand, the machinery activity averaged 21% below a comparable level. This means the greatest discrepancy since July, 1930.

It seems fairly evident that only a large amount of confidence that Japan will firmly hold the custody silk can prevent a decline in prices. An appraisal of the whole situation as presented above, suggests underlying weakness. A month ago we suggested that a reaction in prices was probable before the end of September and it seems probable at this writing that that suggestion will be borne out. It does seem, however, that the worst has been known for so long that new lows are unlikely.

Machinery Activity and Sales

The latest data are for July and our adjusted indexes for that month show little change except the decline in narrow looms. Spindle activity was practically unchanged from June, when it was the lowest on the record back through 1922. July spindle activity was about 65% of the average for 1927-29. Broad loom activity was about 84% of the same average and was also practically unchanged from June. It is the lowest in recent years, except only for June, 1931 and August, 1930. Employment in silk manufacturing decreased to a new low level in July.

The decline in our adjusted index of "deliveries" for August is not encouraging as to the nearby trend. We note again the extremely high ratio of deliveries to any indexes of machinery activity or employment in silk manufacturing. There can be little question but that in the last three months the so-called deliveries have much exceeded actual mill consumption, and some confirmation of this conclusion may be seen in the reports of resale silk. This condition in the past has usually resulted in a break in prices sooner or later.

July is usually the poorest month of the year for silk goods sales, and July, 1931 was no exception. Though the yardage sold was 15% above July last year, it was 10.9% under the June figure, and only about 87% of the average for the two years 1928-29.

If we allow for seasonal variation, however, the showing appears much better, and in yardage July represents the best month of 1931, excepting June. Making allowance for the season, July sales represented an annual rate about 25% above the 1928-29 average. The figure also appears to be far above its average relation with broad loom activity and thus indicates a reduction in stocks of goods. This is statistical comfirmation of trade reports. Dollar sales, however, were less favorable and indicate that silk goods moved at price concessions in the wholesale markets. Prices of staple silks averaged lower and manufacturers' replacement margins were considerably reduced.

The average of Cracks XX in August was about $2.49. This compares with $2.50 in July and $3.05 a year ago. The lowest monthly average for this recession was $2.375 in June. During the month of August the New York spot market (minimum quotations) advanced from $2.40 to $2.57. At Yokohama 80% seriplane rose from 600 yen to 670 yen. On the National Raw Silk Exchange futures gained about 11c. It is notable that Yokohama was considerably stronger than other markets.

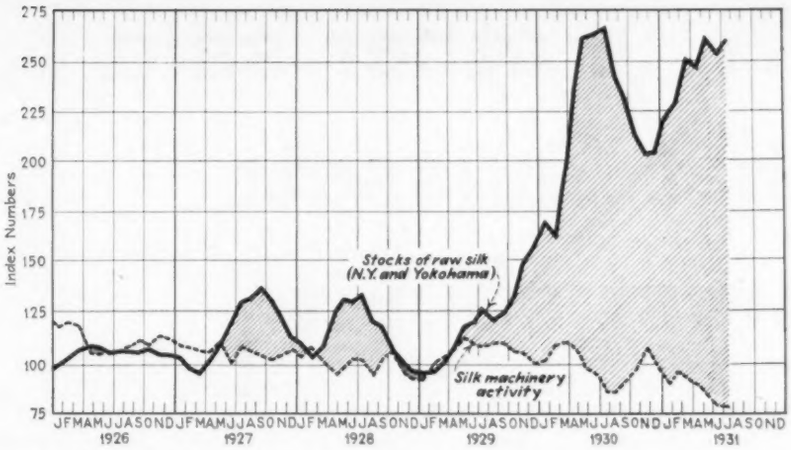

Fig. 1. RAW SILK STOCKS AND MACHINERY ACTIVITY. Stocks—N. Y. and Yokohama, adjusted for seasonal variation, three month moving average; N. Y. Stocks, Silk Association; Yokohama Stocks, H. L. Gwalter & Co. Machinery Activity—Composite of spindles and looms adjusted for seasonal variation, Silk Association. Average. 1923-1927 = 100 for both indexes.

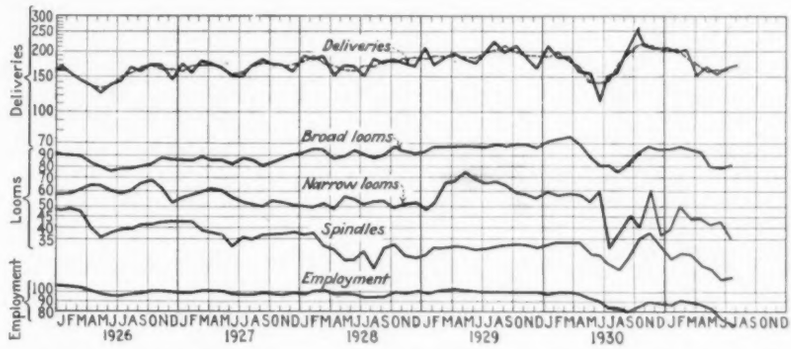

Fig. 2. INDEXES OF ACTIVITY IN SILK MANUFACTURING—Deliveries (heavy line). Bales 1921 = 100 (Silk Association). Monthly figures, dotted line; three-months' moving average, solid line. Broad looms, narrow looms, spindles, per cent active to total (Silk Association). Employment, number employed. Average 1923 = 100 (U. S. Bureau of Labor Statistics). All indexes in Fig. 2 are plotted on a logarithmic scale.

Market Briefs

Cotton: ***Small fluctuations on lower price range.***
Cotton Yarns: ***Call for immediate deliveries, but buyers haggle on price.***
Cotton Goods: ***Lower prices and efforts by sellers to instil confidence.***
Wool: ***Quiet with sellers still holding prices firm.***
Worsted Yarns: ***Nearby yarns only center of interest.***
Woolen Goods: ***Spots quiet; worsted stocks growing.***
Silk: ***Japan weakness brings 10c. drop. Good spot call.***
Silk Yarns: ***Little interest either in thrown or spun yarns.***
Silk Goods: ***Improved demand; satins and cantons leading.***
Rayon: ***Trade approves acetate cut; demand slackens.***
Knit Goods: ***Hosiery sales better; 1932 swimsuit prices 5-8% down; winter underwear heavily sold ahead.***

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YARNS AND RAW MATERIALS

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◆Cotton Yarns for Prompt Delivery

INQUIRY for spot shipments of cotton yarns continues as a feature, although for the most part it is largely restricted to certain staple yarns, especially in carded knitting yarns. Manufacturers in making such inquiries usually have their own ideas of prices, but supplies of spot shipments are by this time so limited that they are not usually able to obtain the yarn at their figure. Prices for these immediate shipments are higher than levels prevailing for yarns delivered from spinners. Curtailed operations of many spinners, as well as the continued drain upon visible supplies of these staple counts have practically exhausted stocks of the popular counts.

There is apparently little demand for yarns over a long period ahead. However, the fact that stocks of finished goods in the hands of both manufacturers and distributors are very low, leads the trade to look for a broader activity in the near future. There is a feeling that the market is gradually working its way to stabilization. The recognition of the fact that cotton yarns are at "ridiculously low prices" also convinces many factors that the market is on a good foundation.

The business still continues to be largely in carded yarns rather than in combed qualities, as offering a lower priced product. The bulk of the interest of late is found in the coarse counts of carded framespun knitting yarns, for heavyweight underwear. These mills are reported to be operating on good schedules. Yarn dealers report satisfactory deliveries against contracts, and recent deliveries have been larger than for some months. Demand for yarns to fill in are also reported from 14s to 18s especially, with 10s selling at 15 to 15½c. for spot lots, with later deliveries from the mills at 14½c.; 30s double carded are noted at 23 to 24c. Novelty hosiery also has contributed some of the interest in yarns.

Weaving yarns are less active than the knitting yarns as mill operations are rather spotty. Plush mills are still dull, but some business is expected to develop shortly, as well as in men's wear mills. Tapestry mills are not active, which accounts largely for the reduced interest in 30s-2 warps. Certain manufacturers are reported enjoying some business on fabrics for the popular needle-point hand bags. This business is however regarded as a specialty which may not have a long run. Some of these fabrics are using 5s-2 for filling at 14½ to 15c.; and 30s-2 and 40s-2 in the warp. An effort to place an order for 20s-2 with a spinner at 17c. was unsuccessful, as they usually want 17½c.; however sales are reported at 16½c. for late delivery, with a few prompt deliveries sold at 17c.; a sale of 30s-2 warps was accepted by a spinner at 20½c., with 21c. usually quoted.

Combed yarns have not enjoyed an active season. Prices are inclined to be easy, and close buyers are said to be able to shade those prices noted on page 64. Ball warps in ply yarns for mercerizers are in rather good supply and these prices are rather erratic. Single combed yarns are noted on a basis of 20 to 21c. for 10s; 39c. for 50s; 34c. for 38s. Mercerized yarns continue to be very quiet with fall deliveries still lagging somewhat. Prices are said to be somewhat dependent upon conditions, as well as quality, the better grades holding to the range noted on page 64.

◆Cotton Fails to Hold Moderate Rallies

THE cotton market which had shown recoveries of some 35 to 40 points after the first break on the Government crop report of Sept. 8, eased back to about the previous low records at the beginning of the current week. December contracts which had sold up to 7.18 on the rally of the previous week broke to 6.71 on Monday, and while there was enough buying at this figure to check the decline and cause moderate rallies, the market was rather unsettled and irregular later in the week.

Selling has been encouraged by a continuance of favorable weather in the South for picking and ginning. There have been reports of deterioration from some quarters, but it is doubtful whether they have been more serious than usual, and the weather since the first of September would seem to have been calculated fully to maintain if not somewhat increase the indicated crop. More active progress has undoubtedly been made in picking and ginning and at times hedging has been a little more active, but in the opinion of local traders, it has not increased commensurately with the more rapid progress in harvesting. This undoubtedly reflects a holding movement in the South. The feeling here is, however, that if there has been holding in the hope of some outside development making a better market, that it will only add to the pressure later on. Harvesting continues slow but the flow of cotton through the gins must be daily increasing and supplies will soon be piling up at a rapid rate whether they are held or marketed. It is the weight of 15½ million crop at the height of the season on a market which last season consumed only about a million bales of American cotton and carried forward only slightly less than 9,000,000 bales from previous crops,

(Continued on page 60)

◆Worsted Yarns Trend To Lower Grades

WORSTED yarns reveal no special development that indicates any definite change in the situation. Buying continues for the most part to meet present needs, and therefore is usually confined to small lots. This situation is due largely to the fact there are as yet no marked volumes of sales in the various branches of the industry, where the trade is still waiting for a broad active buying. One feature which is the matter of comment is the recent advance of 2½c. in prices named by certain spinners for yarns of three-eighths blood quality with 2-18s quoted at $1.05. This step was taken as a result of the advance in wools of this grade.

⅜s and ½-Blood Are Leaders

There is a general feeling that yarns in three-eighths and half-blood grades are to play important parts in the coming season, in both men's wear lines, as well as several knitting lines. Fine wools have shown an upward tendency due to limited supplies reported available. As a consequence certain manufacturers have shown a disposition to turn to the lower grades as offering a lower price on which they will be able to figure more closely to buyers' ideas.

However, there are many knitters who claim the three-eighths yarn really is more desirable from a production standpoint as they can get more rapid production; that a fine or zephyr yarn runs more slowly and is more difficult to handle in many types of knitting machines. They also argue it gives a more durable garment. On the other hand there are manufacturers of jersey cloth who have experienced difficulty in disposing of fabrics made from low three-eighths yarn made to sell at a price. There is, therefore, a difference of opinion to be found. There has also been some tendency to look for a return to the use of ply yarns in making swimsuits as offering a more durable garment. Knitters point out, however, that there is a saving of $1.25 to $1.50 a dozen by the use of a single yarn.

Purchases of knitting yarns are largely of a filling-in character widely distributed over sport coats, infant's wear, trick sweaters with jacquard patterns, etc. Spinners report a good volume of business done in this way, with prices holding well at 80 to 82½c. for 2-20s; single 20s French spun at $1.10 to $1.12½. Reports seem to indicate some manufacturers of jersey cloth are trying yarns of coarser counts than 26s.

Weaving Trades Cautious

Men's wear mills are still waiting for developments. Quiet showing of lines

MONOMAC SPINNING CO. *French Spun worsted yarns for knitting and weaving.*

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YARNS AND RAW MATERIALS

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is said to have taken place, with some resulting business, as there is a little specifying against orders for 2-28s and 2-30s, 64s, at $1.37½ to $1.40 with yarns of 58s to 60s quality figuring to some extent. However, as previously noted there is a general feeling the three-eighths and half-blood yarns will be used largely in the coming season's goods. In fact there are some dealers who are inclined to believe the demand may force these yarns close to the 64s price level.

◆Wool Market Slow In Seasonal Lull

THE in-between season in fabrics, coupled with the fact that there was some forward buying on the part of mills earlier in the summer, has slowed up the raw wool market during the last few weeks and the hoped for improvement after Labor Day has not developed. Prices are nominally unchanged, although fine wools and low quarter-bloods are softer.

Nothing unexpected occurred in the opening of sales at Sydney, Australia, and interest turned to the London sales starting Tuesday of this week where prices were 10 to 15% below July levels. Prior to the opening of the London sales prices at Bradford eased, fine tops declining about 1c. a pound. Consumption of wool in England during July was 36,000,000 lb., an increase of 4,000,000 lb. over June, but still about 7,000,000 lb. less than July, 1930. The total consumption for the seven months ended July 31, shows that there was an increase in England of somewhat less than 6%, as compared with an increase in domestic wool consumption in this country on the order of 33%, according to the U. S. Department of Agriculture.

Fleece wools are not moving freely and fine grades are particularly quiet, fine delaine being available at prices ½c. per lb. below the peak. The sold up condition of three-eighths bloods has prevented any softening of prices in this classification, but low quarter-bloods are not so firm as previously.

Territory wools are moving with a fair amount of steadiness, but the actual poundage involved is not large. Prices are holding to the same level as last week.

◆Wool Wastes Still Unsatisfactory

THE wool waste market continues to wait for better times and, in the meantime, does an unsatisfactory volume of business at prices which are not pleasing to the dealers. Some increase in woolen fabric manufacture is pointed to as an encouraging factor.

Prices, as would be expected in an inactive market, are not firm and quotations have been slowly revised downward since mid-summer until the decline can be said to average somewhere around 10%.

The noil market shows some indications that the worst is over. Production has undoubtedly decreased and the relation between production and demand is working around to a better basis. However, overproduction was prevalent for such a long time that little more can be hoped for than a growing tendency to hold more firmly to quoted prices.

The long range view of wool substitutes can be said to be fairly good, considering stocks on hand and the probable trend of demand, but this is not much help at the present moment. However, the healthy tendency to take things as they are today without forcing the market is noted in many quarters.

◆Acetate Yarn Cut Has Healthy Reaction

THE let-up in sales that usually follows a price cut promises to be brief in the case of cellulose acetate yarns. Hesitancy prevailed among buyers for just a few days following the revision, but demand has already shown signs of returning to normal. The cut has both merits and demerits; while widening the consuming market for acetate, it also narrows the profit margin and accentuates the already difficult problem of making profit out of synthetics. The revision did much to clear the air, however; if anything, it was overdue; acetates have suffered keenly from price competition for eighteen months, and the industry now is hopeful that the stability resulting from the cut will help yarn movement in the final quarter.

Demand for viscose yarn slackened perceptibly last week, as a reaction to the acetate revision, but orders have picked up since, and the outlook is good. The price guarantee shows its value at such a time, and manufacturers are willing to cover for the remainder of the year. Viscose yarn prices are not expected to suffer any price change before January, and several executives said this week they thought any change even then was unlikely.

Weavers and knitters now are in mid-season and several weeks of light buying of yarn may be looked for; sharp declines in orders are improbable, however, as finished goods movement is steady, especially in broadsilks, and mills have little rayon yarn on hand.

◆Japan Weakness Lowers Silk Prices

LOWER levels and active buying feature the raw silk market this week. Prices of both 20/22s and 13/15s are 10c down, reflecting a weaker tone in Japan. The firmness that has maintained in Yokohama for weeks, causing much irritation to American importers who found their buying market stronger than their selling market, has finally broken. There was no sharp recession but the easier tone this week has helped movement of stocks.

Broadsilk mills are covering spiritedly for immediate needs and have difficulty in getting quick delivery of certain preferred 20/22s. The weavers look for further recessions and restrict contracts to nearby. However, as they have increased production to build up stock for the reorder demand, they are in the field for substantial quantities of raw silk. Importers are not over-optimistic about the prospects for a month hence but are glad to get even this temporary flurry of business.

Hosiery mills buy little or no raw silk at present; the sluggish tone in the hosiery field is ascribed partly to weather and partly to the uncertainty as to what will come out of the new wage cut virtually decided upon between the full-fashioned hosiery union and the unionized manufacturers in Philadelphia.

◆Silk Yarn Pick-up Slow in Developing

THE expected September pick-up in silk yarns is slow in developing. The end of the holiday week brought a slight improvement in thrown silk which continued into this week, but the total business placed is woefully small, and throwsters are bewildered as to outlook. Tie silk fabric weavers show fair interest and are contracting for their October needs, but the needs of this market are comparatively light at best; the major outlets, hosiery and broadsilk show practically no interest, so far as sales are concerned. Throwsters hope for better demand from the hosiery knitters soon as inquiries have increased and some sampling is being done.

Spun silk is quiet with the exception of that going to transparent velvet manufacturers; demand from this outlet was good for some weeks; it has slackened but it is still a factor in turnover. There is little prospect of any real fall season at the broadsilk end and it becomes more evident each day that the fall demand is going to be backward and may be followed quite soon by spring demand. Prices are steady.

"Wuxtry . . . all about King Cotton"

Reprinted from
The New York Times.
PARIS, France—Cotton frocks for debutantes instead of the lustrous silk they ordinarily wear were exhibited. One of American buyers' favorite houses displays linen, cotton, organdy and dotted Swiss frocks for every occasion. Even for social butterflies cotton is the smartest raiment in a year marked by uncertain financial conditions. The new frocks are reminiscent of grandmother's garb.

IT'S front page news all right! King Cotton is *the* fashionable monarch. He has given us new cottons . . . beautiful cottons ...smart cottons. And in a year when economy is an important consideration, they have met with unprecedented success.

But there is more to the story than that. In the last few years cotton manufacturers have successfully introduced new merchandising and advertising methods. Successfully, they have styled their fabrics with increasing skill. Successfully, they have adopted trademarking and identification as indispensable sales allies.

Cottons bearing the mark of the manufacturer discourage substitution. They give the manufacturer the missing link for effective advertising. And, in addition, they stimulate consistent, year-around demand.

In the past 29 years every important development in the trademarking of textiles has been introduced by Kaumagraph. We have assisted many cotton manufacturers to create trademarks . . . register these trademarks . . . apply them to the fabric with Kaumagraph Dry Transfers so that they are clear, beautiful and lasting.

If you would insure valuable demand for *your* cottons, call on Kaumagraph for additional information about trademarking and identification methods. Merely get in touch with any one of the Kaumagraph offices listed below.

KAUMAGRAPH COMPANY
200 Varick Street New York City
Chicago . . . Philadelphia . . . Los Angeles . . . Chattanooga, Tenn . . . Charlotte, N. C . . . Paris, Ontario . . . Paris, France . . . Manchester, England

FABRIC MARKET REPORTS

TEXTILE WORLD ANALYST

◆Sellers of Cottons Urge Confidence

COTTON goods sellers are doing all that they legitimately can do to stir up buyer-confidence. It has been apparent since the beginning of August that operations were being held up owing to the apprehension that still lower prices were in store and that buyers were determined to wait for rock bottom. Of course no one can say definitely when bottom arrives until after it has passed, but such a statement as that made by Amory, Browne & Co. in pricing Conestogo tickings is evidence of bottom on at least one line. That house is quoted as stating in its circular that it will not sell the goods for lower prices. "Before we would reduce prices further we would withdraw the goods from sale completely," reads the statement. The prices named on these tickings is 13c. for FF narrow stripe and 14c. for B.F. fancy stripe.

The makers of trademarked sheets and pillow cases made reductions in their new lists issued last Monday which were more extensive than some operators had expected. They amount to 7 to 10% and cover deliveries through to the end of the year. The companies also feature the 99 and 108 in. lengths in sheets. For the standard 81x99 sheet the new price is $13.87 per dozen against a previous price of $15.81. Wide sheetings have been priced on the basis of 39c. for the 9/4 bleached. It is expected that these prices will give buyers confidence to cover their needs for the rest of the year.

In the gray goods market the week opened quiet after a flurry of business on a price reduction at the close of last week. The 5.35 yard 64x60s sold at 4c., the 68x72s at 4⅜c. and the 4-yard 80 squares at 5⅜c. When these prices become possible there was a fairly brisk movement of buying, but it tapered off and at the start of the current week trading was nothing to brag about. Users still seem committed to the policy of watchful waiting.

The association report on gray goods figures covering August showed further improvement in statistical position. Stocks were further reduced, since shipments exceeded production even though production was 8% greater than the rate current through the month of July.

Fine and fancy goods are quiet. It is again the old story here of buyers waiting and covering only nearby needs when in the market at all. Lines involving rayon are in good shape and have been fairly active. Goods using acetate rayon were reduced in price somewhat last week in line with the reduction made by several of the acetate manufacturers. There is considered to be an improved outlook ahead of acetate linings and the market for these materials is steadily broadening.

◆Broadsilk Demand Again Active

THE dress industry looks to the immediate future with increasing confidence and has accelerated its demand for broadsilk fabrics. The post-Labor Day period brought a quick improvement in silk goods sales and the last ten days have been quite active. Crepe-back satins continue in the lead but cantons have gained and are a close second. The rapid growth in canton demand suggests that these lines may prove a best-seller of the season; the call is still widely varied in colors; black is favored due to the style emphasis on black-and-white, but browns and wine shades also move steadily.

In satins, black also is a leader with wine variations showing an increase. Stocks of both satins and cantons are slightly in excess of demand. There is no great quantity of distress goods available and prices are fairly firm. Weavers note a stress on spot buying and are able to meet all requests for quick shipment. Cutters are still averse to anticipating needs even a few weeks ahead.

Both the plain and the novelty metals have begun to move; demand is light and no real call at this end is expected for some weeks. Transparent velvet demand, which has been at its peak for some weeks, is showing faint signs of decline but mills specializing in piles say this is merely a mid-season lull and they look for substantial reorders which will keep them active through to November.

◆Wool Goods Sales Off, Due to Openings

DECLINING demand plus cancellations of earlier business are resulting in considerable accumulation of worsted suiting fabrics in mills and it is doubtful whether prices will hold current levels for the remainder of the season. Some important worsteds companies claim to be in very satisfactory position, thanks to conservative output, but executives of these firms admit that there is distress merchandise available in the market.

Suitings sales were active just prior to Labor Day and the week following showed the normal post-holiday lull. So far, the let-up is only slightly above average and active reordering toward the end of the month would do much to clear the stocks; the new season also militated to make buyers hesitant in covering. Curtailment of suitings production during the next few weeks would be wise, as the cutters themselves are far from confident regarding the second half of their season and reorders may be well below expectations.

A few companies opened their spring lines this week, but the major part of the woolen and worsted industry still holds off; other showings will be held next week and it will be ten days to two weeks before buyers have a chance to study either the new price levels or the lines themselves.

Recent demand for woolens and worsteds has centered largely on low-priced lines, strengthening the position of these to the point where a price cut seems rather unnecessary. Assuming continued economy buying by the public through most of the winter, call for spring lines also will center on the cheaper fabrics.

The week is proving unsatisfactory for both women's fabrics and overcoatings. At the women's end, the stock situation grows unhealthy; supplies of boucles in particular are heavy and reduction of output is essential to prevent a sharp end-season break.

▸Callaway Urges Cotton as Substitute for Jute

In line with organized efforts to stimulate increased uses for cotton, Cason J. Callaway, La Grange, Ga., president of the American Cotton Manufacturers' Association, in a statement to the active mill members of that organization Sept. 12, urged them to use cotton wrapping instead of jute wrapping in preparing the various commodities produced by their mills for the market.

The construction of the cotton fabric recommended by Mr. Callaway to supplant burlap is, as follows: The mix is 40% average good ordinary cotton—average ⅞ in. staple—and 60% average upland strips on which there is a waste in manufacture of approximately 17%. The yarns are 8s singles in both warp and filling. The warp twist is 13.3 turns per inch, and the filling 11.16. The percentage of sizing in the warp is about 13%, and this is considered in arriving at 17% total waste figure.

Mr. Callaway declares that it is practical to use this cotton wrapping 100% in place of burlap. Although he has on hand two or three months supply of burlap, it is his wish to begin using this cotton wrapping immediately, saving the burlap until the price of cotton advances to a point where it is not economical to use the cotton fabric for this purpose.

KNIT GOODS MARKETS

TEXTILE WORLD ANALYST

◆Some Mills Show Spring Underwear

HEAVYWEIGHT underwear is the most active unit of the underwear field, with lines selling four to five weeks ahead. Distributors put off buying to the last minute and now they are pressing the mills for shipment. Knitters are much encouraged that the sales should be so active in an unusually warm September and they look for increased business when the weather becomes more seasonable. Numerous chain groups have placed their first reorders but all contracts are small and indications point to continued piecemeal reordering through to the end of the year. Prices are firm and the distributors seem reconciled to unchanged levels for the rest of the season.

Careful curtailment of output during the first half of the year has put heavyweight underwear mills in a good position as regards stocks. The market today definitely favors the seller, which explains the refusal of manufacturers to yield prices following the raw cotton break.

Demand for lightweight underwear has shrunk to a negligible point in view of the opening of the 1932 lines. A few mills have shown their new lines and mostly at a substantial reduction in price but the total of mills is not sufficient to give a true indication of the levels for next season. Distributors are holding off on contracts, until all prices are announced and they have had a chance to study the ranges.

◆New Swimsuit Prices 5-8% Below Last Year

MODERATE interest but negligible buying greeted the first swimsuit openings of the 1932 season. Prices are 5 to 8% below last year, the cut being somewhat larger than had been expected. Only a small part of the industry has shown lines as yet and no real buying is looked for for a few weeks. Significant among the new offerings is the emphasis placed upon all-white and black-and-white suits for women. These are strongly approved by the style authorities as linking up with the black-and-white vogue in street and formal wear, and are regarded as a potentially important division of the new line.

White swimsuits for men which made their first appearance this season and have been well received are not accented in the new showings as a whole. Mills which include white suits for men in their lines are particularly confident about this color, however, and expect good movement. The early showings give outstanding emphasis to pastels for women and the range includes all the soft shades, particularly coral, orchid and beige.

Sweaters in Spirited Demand

Heavyweight sweaters continue in spirited demand. Weather has not been favorable but retailers and jobbers are covering actively and the majority of the mills are sold up for four to six weeks. Dark shades as usual predominate. Prices are firm and the market looks for steady sales for several months. Call for mediumweight sweaters has slackened. Total volume on heavyweights will be well below other years due to the backward buying, but the industry is making fair profit on current business. Knitters are hoping for a good spell of cool weather to clear the small stocks now in retailers' hands and thus stimulate reorders.

◆Full-Fashioned Hosiery Improves

FULL-FASHIONED hosiery sales have improved during the last ten days despite the unseasonably warm weather which extended over the post-holiday period, and mill agents are considerably encouraged. Given a spell of crisp fall weather buyers should show greater interest. The first few days after Labor Day were quiet, but the end of that week brought improvement which has been maintained since. Neither jobbers nor retailers have more than a few days' stock on hand and they are pressing their sources for quick shipment.

The pick-up is far from rush proportions but it is seen as indicating a definite turn. All lines—men's, women's and children's—have been in demand during the last few days. Full-fashioned hosiery prices are steadier though there is still strong price pressure. The widely talked-of trend to quality seems nothing more than a hope, so far as real volume is concerned. Buyers are stressing price very emphatically at present and agents have difficulty in moving stocks unless they make concessions which put a big dent in profits.

Hosiery mills are resigned to a "price" season however and are relying on volume to partially at least make up for the narrow margin. Knitters regard the prospects for the final quarter as promising, though much will depend on the results of the negotiations between the American Federation of Full-Fashioned Hosiery Workers and the manufacturers' association in Philadelphia.

◆Raw Cotton Reports

(Continued from page 55)

that prevents any general or aggressive buying for investment at prices believed to be well under the cost of production.

The week's contributions to the statistical position, were without any appreciable effect on the market. The figures of the Association of Cotton Textile Merchants of New York on carded cotton cloth production and distribution showed increased production as compared with the previous month and a further decrease in stocks on hand, but a sharp decline in the volume of unfilled orders. The small stocks, however, made a favorable impression on sentiment in connection with the fact that recent business in goods has been largely for prompt shipment and that some Worth Street authorities are anticipating a good fall trade.

The report of the Census Bureau showing domestic mill consumption of 425,819 bales for August compared with 352,626 for the same month last year was about in line with expectations. Favorable comparisons with last year's very low figures are expected, and the impression is that cotton goods outlook is favorable enough to maintain the present rate of mill production. In short, consumption in this country, at least, is expected to run considerably above last year's which amounted to only 5,271,000 bales, of lint cotton including foreign growths. On the whole, the events of the last week do not appear to have thrown much light on the subject of future values, but in a general way the market evidently expects to see the lowest prices of the season between now and the first of January.

◆More Interest in Comber Strips

THE bulk of the limited business in cotton wastes early this week was in specialties and high grade comber and peeler strips. Sak. strips were in slightly better demand than usual, but the total volume of business moving is still far below normal. Stuffing stocks and threads for machining show no improvement, values of the former being depressed by cheapness of cotton linters.

Spinners of coarse count yarns were the principal purchasers of Sak. strips, as high as 9c. being paid in one instance for a particularly choice lot; ordinary grades sell readily at 100% of New York spot cotton. Peeler comber is quoted currently at 5¼ to 5¾c. while really choice grades of peeler strips sell at a premium over comber, as high as 6¼c. being paid by one spinner.

TEXTILE FINANCIAL NEWS

TEXTILE WORLD ANALYST

◆Pepperell Nets Loss But Betters Position

FOR the fiscal year ended June 30, 1931, Pepperell Mfg. Co., operating cotton mills at Biddeford and Lewiston, Me., Lindale, Ga., Opelika, Ala., and Fall River, Mass., reports net loss of $582,441 after all charges, including markdown in inventory amounting to $682,857. In the 1930 year the company earned net profit of $660,002, and in 1929 a net profit of $1,114,280.

Sales totaled $17,128,803, compared with $18,246,089 in the 1930 year and $16,762,107 in 1929. Last year's tonnage sales were 10% greater than those of 1930, the dollar decrease being due to reduced prices.

Despite the loss from operations, there was a noteworthy improvement in Pepperell's already good balance sheet. Current assets on June 30, last, totaled $11,696,067 against $10,544,524 a year ago and current liabilities $262,317 against $322,310. Working capital, therefore, was increased to $11,433,750 from $10,222,214. During the year, also, the company bought $563,700 par value of its own stock in the open market, thereby reducing the amount outstanding to $10,027,100.

In addition to the loss last year, the company paid unearned dividends of $757,637, making total charge to surplus of $1,340,078. However, the company realized $981,597 net credit from sale of water power properties, transferred $350,000 from inventory reserve to surplus and had sundry credits to surplus of $36,855, with the net result that surplus actually increased from $8,735,751 to $8,764,125.

American Woolen Loss

American Woolen Co. reports for the six months ended June 30 net loss of $1,675,221 after charges, inventory adjustments and depreciation, against net loss of $2,543,104 in the first half of 1930. After an additional deduction for note issue premium written off of $134,225, final net loss for the first six months of 1931 was $1,809,446. The operating loss before depreciation was $925,844, against a loss of $1,793,103 for the same period of 1930.

Commenting on the report, President Noah said in part: "Included in the operating loss is a substantial reduction in inventory valuation, due to a decline of approximately 18% in domestic wool prices during the period. There was charged for depreciation in each period approximately $750,000.

"The company retired on June 1, last, $5,500,000 Webster Mill 6½% notes, the entire issue, and there matures for payment on Oct. 1, $5,500,000 7% Shawsheen mill notes, of which practically half already have been acquired. The company is strong in cash, having on hand, including Government bonds, over $20,000,000. Net current assets as of June 30 total $42,980,214."

Surplus account as of June 30, 1931, shows a loss of $3,386,537 from that of Dec. 31, 1930, and now stands at $1,400,848. In addition to the loss for the last six months there was deducted from this account $1,577,091 for creation of reserves, etc., to cover items applicable to operations of previous years, which latter reduction was made in accordance with the recommendations made by the auditors.

Arnold Print Profits

For the year ended June 30, 1931, Arnold Print Works, North Adams, Mass.; reports net profit after all charges of $316,988, equal after preferred dividends to $1.71 per share on 100,000 shares of common stock. This compares with net profit in the 1930 year of $448,655, equal after preferred dividends to $2.98 per common share. Net sales last year totaled $5,471,809 as compared with $5,062,439 in 1930, while operating expenses were $4,914,519 and $4,418,853 respectively. On June 30, 1931, the company had current assets of $1,536,169 and current liabilities of $345,067, making net working capital $1,191,102, which compares with $1,220,759 a year ago.

Bigelow-Sanford Seeks Listing

Bigelow-Sanford Carpet Co., Inc., has made application to list the capital stock of the company upon the New York Stock Exchange. The stock is now traded in on the Boston Stock Exchange and the New York Curb Market. Capitalization of the Bigelow-Sanford Co. comprises 55,000 shares of 6% preferred stock, par value $100, and 326,500 shares of common stock of no par value. The preferred stock is distributed among 1,025 stockholders and the common among 3,551 stockholders. Transfer agent will be J. P. Morgan & Co. and the stock will be registered at the First National Bank.

The half-yearly statement of the company on June 30 last, showed a book value of the common stock of $81 per share.

Financial Brevities

American Enka Corp. (Enka, N. C.) directors will meet at Asheville, N. C., on Sept. 26 for the first time since the establishment of the plant three years ago. The regular board meetings every two months have been previously held in New York. It is rumored in Asheville that a program for expansion will be considered by the directors.

Clausner Hosiery Co., Paducah, Ky., has filed an amendment increasing capital stock from $500,000 to $600,000.

Industrial Rayon Corp., Covington, Va., reports for the two months ended August 31 net profit of $202,934 after charges and federal taxes.

Boston Stock Auctions

The following sales of textile shares were made at auction, Wednesday, Sept. 9:

Shares	Mill	Par	Price	Ch'ge
5	Ludlow	...	104½	—1
25	Arlington	100	24¾	— ¾
8	Naumkeag	100	65	....
20	Plymouth Cordage	100	67	+4
10	Boston Woven Hose, com.*	...	50	....
68	Total			

*Ex. div.

▸Southern Mill Stocks

(R. S. Dickson & Co., Charlotte, N. C.)

	Bid	Asked
Acme Spinning Co.	44	55
American Yarn & Processing Co.	35	45
Chadwick-Hoskins Co. (Par $25)	5	8
Chadwick-Hoskins Co., 8%, pfd.	79	82
Crescent Spinning Co.	40	47
Durham Hosiery, 6%, pfd.	18	23
Erwin Cotton Mills Co., 6%, pfd.	84	90
Flint Mfg. Co.	..	57
Flint Mfg. Co., 7%, pfd.	84	90
Hanes, P. H. Knitting Co.	6	10
Hanes, P. H. Knitting Co., 7%, pfd.	78	91
Linford Mills	40	51
Perfection Spinning Co.	43	60
Roanoke Mills, 1st pfd., 7%	40	48
Rosemary Mfg. Co., pfd., 7%	70	..
Stowe Spinning Co.	40	50
Ware Shoals Mfg. Co.	..	90
Ware Shoals Mfg. Co., 7%, pfd.	80	85
Winget Yarn Mills Co.	..	42
Wicasset Mills Co.	115	135

(A. M. Law & Co., Spartanburg, S. C.)

Avondale Mills, Ala.	525	650
Bibb Mfg. Co.	84	88
Clifton Mfg. Co.	..	70
D. E. Converse Co.	..	55
Dunean Mills	70	85
Dunean Mills, pfd.	94	96
Gossett Mills	..	30
Hunter Mfg. & Com. Co., pfd.	72	77
Judson Mills, A pfd.	83	86
Judson Mills, B pfd.	79	83
Monarch Mills	70	75
Newberry Cotton Mills	..	75
Orr Cotton Mills	35	40
Pacolet Mfg. Co.	..	40
Piedmont Mfg. Co.	..	55
Riverside & Dan River Mills (Par $25)	7	9
Riverside & Dan River Mills (6%, pfd.	54	58
Southern Bleachery & Print Works, pfd	..	40
Spartan Mills	..	95
Union-Buffalo Mills, 1st pfd.	..	50
Victor-Monaghan Co.	40	42

▸Textiles on N. Y. Exchanges

The following shows the movements of the leading textile stocks listed on the New York Stock Exchange and Curb for the week ended Sept. 15.

	High	Low	Last Sale	Net Chge.
Adams Millis	32½	31	31½	+ ½
American Woolen	7	6⅝	6⅝	— ⅛
American Woolen, pfd.	32½	29	30½	— 1
Belding-Heminway	6	5½	6	....
Botany Mills, 'A'	1⅞	1⅞	1⅞	+ ⅛
Cannon Mills	20⅜	20⅛	20⅜	— 1
Century Ribbon	7	5⅛	5⅛	— 1
Collins & Aikman	13	12⅛	12⅛	— ⅛
Consolidated Textile	⅛	⅛	⅛	+ ⅛
Duplan Silk	10	10	10	+ 1½
Durham Hosiery, pfd.	21	21	21	....
Gotham Hosiery	8	7½	7½	— 1½
Industrial Rayon	34⅛	30⅜	31⅜	+ 1⅛
Kayser, Julius	12⅛	12	12	+ ⅛
Kendall, pfd.	50⅜	38½	38½	12½
Mallinson	1¾	1½	1¾	— ⅛
*Mock Judson	6	6	6	....
Mohawk Carpet	12½	12	12	....
Munsingwear	16⅛	16½	16½	— ⅛
*Pepperell	65½	65⅛	65⅛	— 3⅛
Real Silk Hosiery	6	5⅛	5⅛	+ ⅛
*Tubize	4¼	4	4	— ¼
United Piece Dye Works	17	16½	16½	— 1½
Van Raalte	10	10	10	....

QUOTATIONS

at close of business, Sept. 16, 1931
Prices cover average qualities unless otherwise stated

Cotton Goods

	Sept. 16	Sept. 9	Sept. 17, 1930
PRINT CLOTHS			
27 -in., 64x60, 7.60	2¾–2¾c.	2¾c.	4¼c.
38½-in., 64x60, 5.35	4 c.	4¼c.	5½–5¾c.
39 -in., 68x72, 4.75	4¼c.	4¾c.	6 –6¼c.
39 -in., 72x76, 4.25	5¼c.	5¼c.	6¾–6¾c.
39 -in., 80x80, 4.00	5¾c.	5¾c.	7¼–7¼c.
BROWN SHEETING			
36-in., 56x60, 4.00	4¼–4¼c.	4¼c.	6¼c.
36-in., 48x48, 3.00	4¼c.	4¾c.	7¼–7¼c.
37-in., 48x48, 4.00	4¼c.	4¼c.	5¼c
PAJAMA CHECKS			
36½-in., 72x80, 4.70	5¼c.	5¼c.	6 c.
36½-in., 64x60, 5.75	4¼c.	4¼c.	5 c.
MISCELLANEOUS			
Drills, 37-in., 3 yd.	5¼c.	5¼c.	7¼c.
Denims, 2.20	9¼c.	9½c.	12¼c.
Tickings, 8 oz.	14 c.	14 c.	16 c.
Standard prints	7 c.	7 c.	8 c.
Eastern staple ginghams, 27-in.	7¼c.	7¼c.	10 c.

Cotton Waste

(Prices Nominal)

Peeler comber	5¼– 5¾
Peeler strips	5½– 6
Sak. comber	5¼– 5¾
Choice willowed fly	2 – 3
Choice willowed picker	2 – 2½
Sak. strips	6½– 9
Linters (mill run)	1½– 2½
White spooler (single)	5 – 5¼

Cotton Yarn

CARDED (Average Quality)
Double Carded 2c.—4c. higher according to quality

SINGLE SKEINS OR TUBES (Warp Twist)

4s to 8s	$0.14½	22s	$0.18½– .19
10s	.15	24s	– .19½
12s	– .15½	26s	– .20½
16s	– .16½	30s	– .22
20s	– .17	40s ex. qual.	.32½– .33½

TWO-PLY SKEINS AND TUBES

8s-2	$0.14½	26s-2	$0.20
10s-2	– .15	30s-2	– .21
12s-2	– .15½	36s-2	– .28
14s-2	– .16	40s-2	.29 – .30
16s-2	– .16½	40s-hi.brk.	.32 – .33
20s-2	– .17	50s-2	– .37
24s-2	– .19	60s-2	– .40

SINGLE WARPS

10s	$0.15	24s	$0.19
12s	– .15½	26s	– .20
14s	– .15½	30s	– .22
16s	– .16	40s ex.qual.	– .33
20s	– .17		

TWO-PLY WARPS

8s-2	$0.15	24s-2	$0.19
10s-2	.15 – .15½	26s-2	– .20
12s-2	– .15½	30s-2	– .21
14s-2	.15½– .16	40s-2 ordin.	– .29
16s-2	.16½	50s-2	– .37
20s-2	.17	60s-2	– .40

8s-2 and 4-ply skeins and tubes; tinged, 14; white, 15; waste, 13

HOSIERY CONES (Frame Spun)

8s	$0.14½	22s	$0.18 – .18½
10s	– .14½	24s	.19 – .19½
12s	– .15	26s	– .20
14s	– .15½	30s tying	.20½– .21
16s	– .16	30s reg.	.21 – .22
18s	.16½– .17	30s ex.qual.	.23 – .24
20s	.17 – .17½	40s	– .29

COMBED PEELER (Average Quality)

TWO-PLY—(Knitting Twist) Cones

20s-2	$0.28	60s-2	$0.46
30s-2	– .32	70s-2	.57 – .58
36s-2	– .34	80s-2	.67 – .68
40s-2	– .36	90s-2	90 – .95
50s-2	.40 – .42	100s-2	1.05 –1.08

WARPS, SKEINS AND CONES

TWO-PLY—(Warp Twist)

20s-2	$0.28	60s-2	$0.45 – .48
30s-2	– .33	70s-2	.56 – .58
36s-2	– .35	80s-2	.66 – .68
40s-2	– .36	90s-2	– .95
50s-2	.38 – .42	100s-2	1.06 –1.10

SINGLES

12s	$0.21 – .21½	30s	$0.30 – .31
14s	.21½– .22	38s	.34 – .35
16s	.22 – .22½	40s	... – .36
18s	.23 – .23½	50s	39 – .40
20s	.24 – .24½	60s	... – .47
24s	.26 – .26½	70s	... – .57
28s	.29 – .29½	80s	.66 – .67

MERCERIZED CONES—(Combed, Ungassed)

26s-2	$0.45 – .47	90s-2	$1.18 –1.23
30s-2	.48 – .50	100s-2	1.48 –1.53
36s-2	.50 – .52	120s-2	1.88– 1.93
40s-2	.52 – .54	30s-2	– .59
45s-2	.54 – .56	40s-2	– .63
50s-2	.56 – .58	50s	.68 – .70
60s-2	.62 – .64	60s	– .78
70s-2	.75 – .77	70s	.88 – .90
80s-2	.87 – .88	80s	1.03 –1.08

Cotton Prices and Statistics

FLUCTUATIONS OF FUTURES

	Closed Sept. 10	For Week High	For Week Low	Closed Sept. 16	Net Ch'ge.
September	6.58	6.61	6.48	6.47	—0.11
October	6.67	6.96	6.52	6.53	—0.14
November	6.78	6.81	6.64	6.64	—0.14
December	6.89	7.18	6.71	6.76	—0.13
January	6.98	7.28	6.83	6.87	—0.11
February	7.08	7.10	6.95	6.94	—0.14
March	7.19	7.48	7.01	7.04	—0.15
April	7.26	7.28	7.13	7.11	—0.15
May	7.36	7.65	7.19	7.21	—0.15
June	7.43	7.44	7.30	7.29	—0.14
July	7.52	7.79	7.35	7.39	—0.13

SPOT FLUCTUATIONS FOR WEEK

(Middling)

	New York	New Orleans	Liverpool
Thursday, Sept. 10	6.70	6.44	3.80
Friday, Sept. 11	6.75	6.44	3.70
Saturday, Sept. 12	6.65	6.34	3.73
Monday, Sept. 14	6.60	6.34	3.73
Tuesday, Sept. 15	6.70	6.41	3.80
Wednesday, Sept. 16	6.60	6.31	3.89

FOREIGN COTTONS

Egyptian Cotton

Alexandria Exchange, Sept. 15		Change
Nov. Sak	11.22	+0.43
Oct. uppers	8.12	+0.40

Sept.-Oct. Shipment c. i. f. Boston
(Tariff not included)

Fully good fair Sak	14.10
Fully good fair to good Uppers	10.85

(By Anderson, Clayton & Co.)

Foreign cottons	F. O. B. New York, Cents
Peruvian Tanguis Strict Middling	17
Peruvian Pima No. 1	16½
Peruvian Moderate Rough	13
Peruvian Full Rough	17
China Tientsin No. 1	9¼
India Rough	7 to 9
India Smooth	7 to 9

(By Bruns-Nordeman Co.)

MOVEMENT INTO SIGHT

	This Year	Last Year	Year Before Last
Week ended Sept. 11	226,000	470,000	449,000
Season	684,000	1,580,000	1,358,000

WORLD VISIBLE SUPPLY

	Today	One Year Ago
Interior towns and ports of U.S.*	3,512,000	2,712,000
Afloat to and at ports of Europe	1,006,000	945,000
Afloat to and at ports of Orient	379,000	171,000
Total	4,897,000	3,828,000
	Increase	Increase
Change during week	26,000	305,000

*Includes afloat to New York.

FORWARDING TO MILLS OF WORLD

	This Year—Week	This Year—Season	Last Year—Week	Last Year—Season
Northern States, U.S.	11,000	72,000	9,000	56,000
Southern States, U.S.	57,000	286,000	57,000	222,000
Total United States	68,000	358,000	66,000	278,000
Great Britain	18,000	101,000	14,000	84,000
Continent	57,000	269,000	65,000	342,000
Orient	55,000	227,000	17,000	70,000
Canada and other America	2,000	12,000	3,000	15,000
Total Foreign	132,000	609,000	99,000	511,000
World total	200,000	967,000	165,000	789,000
EXPORTS FROM UNITED STATES				
Total	85,000	363,000	203,000	653,000

AVERAGE PRICE SEPT.-OCT. SHIPMENT HARD WESTERN COTTON

F.o.b. New England	Middling	St. Middling
1 1/16-in	8½–8¾c.	9½–9¾c.
1⅛-in	9½–9¾c.	10½–10¾c.
1 3/16-in	11 –11¼c.	12 –12¼c.
1¼-in	15 –16c.	17 –18c.

Basis on New York, December, 6.88.

SPOT FLUCTUATIONS AND STOCKS

Markets	Middling Sept. 9	Middling Sept. 16	Stocks Sales	Stocks This Week	Stocks This Season
Galveston	6.70	6.45	1,186	420,417	249,931
New Orleans	6.64	6.31	8,764	521,915	350,985
Mobile	6.15	6.05	4,395	201,937	57,621
Savannah	6.42	6.25	1,804	351,596	188,427
Norfolk	6.56	6.31	394	45,947	41,663
New York	6.90	6.60	1,900	228,667	237,360
Augusta	6.38	6.13	1,815	74,773	79,868
Memphis	5.85	5.45	10,162	76,630	134,909
St. Louis	6.15	6.05	.....	.....	1,779
Houston	6.65	6.35	64,333	741,198	757,469
Dallas	6.05	5.85	98,593	8,898	12,737

DIFFERENCES ON AND OFF MIDDLING

WHITE GRADES

	Dallas	Memphis	Montgomery	Augusta	Average
M.F	.75†	1.00†	.75†	.75†	0.83†
S.G.M	.60†	.75†	.65†	.63†	.67†
G.M	.50†	.50†	.45†	.50†	.48†
S.M	.35†	.25†	.25†	.25†	.29†
S.L.M	.50*	.40*	.50*	.50*	.47*
L.M	1.00*	.90*	1.00*	1.00*	.97*
S.G.O.**	1.50*	1.25*	1.50*	1.50*	1.48*
G.O	2.00*	1.50*	2.00*	2.00*	1.98*
YELLOW TINGED					
G.M	.40*	.35*	.50*	.50*	0.46*
S.M	.65*	.60*	.75*	.75*	0.70*
M.**	1.00*	.75*	1.00*	1.00*	.99*
S.L.M	1.50*	1.25*	1.50*	1.50*	1.52*
L.M	2.00*	1.50*	2.00*	2.00*	1.97*
YELLOW STAINED					
G.M	1.00*	1.00*	1.00*	1.00*	.98*
S.M.**	1.25*	1.50*	1.25*	1.25*	1.32*
M.**	2.00*	1.75*	2.00*	2.00*	1.99*
BLUE STAINED					
G.M.**	1.00*	1.00*	1.00*	1.00*	1.03*
S.M.**	1.50*	1.25*	1.50*	1.50*	1.48*
M.**	2.00*	1.50*	2.00*	2.00*	1.93*

**Grades not deliverable on contract. †On Middling. *Off Middling.

Wool

OHIO, PENNSYLVANIA AND WEST VIRGINIA (IN GREASE)

Fine delne..	$0.25 –$0.26	⅜ blood....	$0.23½–$0.24½
Fine clthg ..	.20½– .22	½ blood....	.22 – .23
¼ blood.....	.24 – .25		

TEXAS AND CALIFORNIA (CLEAN BASIS)

Texas, 12 months	$0.58 –$0.60
California, Northern	.50 – .52

PULLED—EASTERN (CLEAN BASIS)

A.A	$0.62 –$0.65	B-Super	$0.46 –$0.48
A-Super	.50 – .53	C-Super	.41 – .43

MONTANA, IDAHO AND WYOMING (CLEAN BASIS)

Staple fine	$0.61 –$0.63
Staple ½ bld	.57 – .59
Fine and fine medium	.56 – .59
¾ blood	.50 – .52
½ blood	.45 – .48

MOHAIR—DOMESTIC

Best carding	$0.23 –$0.25
Best combing	.31 – .33

MOHAIR FOREIGN (IN BOND)

Turkey fair, average	$0.17 –$0.20
Cape firsts	.18 – .21

FOREIGN CLOTHING AND COMBING (CLEAN BASIS IN BOND)

Australia:	
70s	$0.53 –$0.55
64s	.46 – .48
58s-60s	.41 – .43

(IN GREASE)

Montevideo:	
58s-60s	$0.19 –$0.20
56s	.19 – .20
50s	.16 – .17
Buenos Aires:	
4s, 40-44s	$0.14 –$0.15
5s, 36-40s	.12 – .14

FOREIGN CARPET (GREASE BASIS IN BOND)

Aleppo washed	$0.22 –$0.24
China: Combing No. 1	.13 – .14
China Filling Fleece	.12 – .14
Szechuen ass't	.12 – .14
Cordova	.14 – .15
Scotch black face	.15 – .17
East India: Kandahar	.17 – .19
Vican'r	.23 – .25
Joria	.23 – .24

Worsted Yarns

ENGLISH SYSTEM WEAVING

2-20s 36s	$0.75 –0.77½
2-24s 40s	– .85
2-26s 44s	.87½– .90
2-28s 46s	.92½– .95
2-30s 48s	.95 – .97½
2-32s 50s	.97½–1.00
2-30s, 64s fancy mixes	1.37½–1.45
(Single yarns 5c. less than above)	
2-36s, 58s	$1.17½–1.20
2-40s, 60s	–1.20
2-40s, 64s	1.35 –1.37½
2-50s, 66s	1.40 –1.45
2-60s, 70s	1.82½–1.85

ENGLISH SYSTEM KNITTING

2-20s, 44s in oil	$0.75 –0.77½
2-20s, 48s in oil	– .80
2-20s, 50s in oil	.80 – .82½
2-20s, 56s in oil	.95 – .97½
2-20s, 60s in oil	1.10 –1.12½
2-20s, 64s in oil	1.20 –1.25
1-18s, 48s dyed	.95 – .97½
1-18s, 50s dyed	.95 – .97½
(Oil yarns 17½c. less)	

FRENCH SYSTEM

1-20s, 58s	$1.05 –1.07½
1-20s, 60s	1.10 –1.12½
1-18s, 64s, dyed	1.32½–1.35
1-26s, 64s	1.10 –1.12½
1-30s, 60s, Warp	1.20 –1.22½
1-30s, 64s, Warp	1.22½–1.25
2-30s, 64s, Fancy mixes	1.45 –1.47½
2-40s, 64s, Zephyrs	1.35 –1.40
1-50s, 66s	1.47½–1.52½
2-50s, 66s	1.50 –1.55
1-60s, 70s	1.85 –1.87½
2-60s, 70s	1.90 –1.95

FRENCH SPUN MERINO WHITE

1-30s, 50-50-58s on cops	$ .95 –1.00
1-40s, 50-50-60s on cops	1.10 –1.15
1-40s, 50-50-64s on cops	1.12½–1.15
1-40s, 50-50-64s Australian cops	1.20 –1.25

Underwear mixes, 3 to 5c., Solid color, 35c. additional.

New York Top Futures

	Closed Sept. 9	For Week High	For Week Low	Closed Sept. 15	Net Ch'ge.
September	76.00	76.50	71.00	76.00	.....
October	70.50	75.00	70.00	75.00	+4.50
November	70.50	75.00	70.00	75.00	+4.50
December	70.50	75.00	70.00	73.00	+2.50
January	70.20	73.00	70.00	70.20	.....
February	70.20	73.00	70.20	70.20	.....
March	70.50	71.50	70.50	71.50	+1.00
April	70.00	73.00	70.00	70.00	.....
May	70.00	70.50	70.00	70.00	.....
June	70.00	73.00	69.00	70.00	.....
July	70.00	73.00	69.00	70.00	-----
August	70.00	73.00	69.00	70.00	.....

Tops and Noils

TOPS—BOSTON

Fine (64-66s)	$0.82–$0.85
Half-blood (60-62s)	.78– .80
High ¾ blood (58s)	.70– .72
Aver. ¾ blood (56s)	.63– .65
Low ¾ blood	.60– .62
High ½ blood (50s)	.53– .55
46s S. A. and N. Z.	.51– .53
44s S. A. and N. Z.	.50– .52
40s S. A. and N. Z.	.48– .50

TOPS—BRADFORD, ENG. (SEPT. 5)

Fine (70s)	24 d	¾ bld. (56s)	15 d
Fine (64s)	21 d	½ bld. (50s)	11½d
½ bld. (60s)	19½d	Cross-bred (46s)	9½d
¾ bld. (58s)	17 d		

NOILS—BOSTON

Fine	$0.37–$0.40	High ½ bld	$0.30–$0.31
Half-bld	.35– .37	Low noils	.25– .28
Aver. ¾ bld	.34– .35	Medium colored	.23– .25
Fine colored	.31– .33		

Wool Substitutes

WOOL WASTE

Lap, fine white	$0.60 –$0.63
Lap, fine colored	.46 – .50
Hard ends, fine white	.48 – .52
Hard ends, ½ blood white	.33 – .35
Hard ends, fine colored	.22 – .25
Hard ends, medium colored	.15 – .18
Card, fine white	.22 – .25
Burr, fine Carbonizing	.27 – .30

OLD WOOLEN RAGS (GRADED FOR MFRS.)

Merinos, Coarse Light	$0.05 –$0.05½
Merinos, Fine Dark	.03½– .04
Merinos, Fine Light	.10½– .11
Serges, Blue	.05½– .06
Serges, Black	.05½– .06
Serges, Red	.08 – .09
Knit, White	.21 – .22
Knit, red	.10½– .11
Knit, Light Hoods	.11½– .12½
Worsted, Light	.05 – .05½
Worsted, Blue	.05½– .06
Worsted, Black	.06 – .06½

Silk Yarns

THROWN SILK (60 day basis)

	Nominal
Japan organzine, 2 thd. spec. gd. XX. sk. 85%.	$3.80
Japan organzine 2 thd. grand sk. 83%	3.65
Japan organzine, 2 thd. sp. crack. sk. 81%	3.55
Japan crepe, 3 thd. gd. XX bob. 83%	3.60
Japan crepe, 3 thd. sp. crack. bob. 81%	3.50
Japan grenadine, 4 thd. sp. grand singles, 87%	4.90
Japan grenadine 3 thd. 90%	5.70
Canton crepe, 3 and 4 thd. 14/16 on bobbins	2.50
Hosiery tram, 3 thd. Japan 90%	4.70
Hosiery tram, 5 thd. Japan, 85%	3.55
Hosiery tram, crack XX 78%	3.20

SPUN SILK YARNS (Terms: net 30)

40/2	$3.10	60/2	$3.45
$4/2	3.30	62/1	2.35

Raw Silk

(60 Day Terms. Spot Goods.)

	13/15 White	20/22 White	20/22 Yellow
Super Grand, 87%	$3.05	$2.60	$2.40
Special Grand, 85%	2.85	2.50	2.35
Grand XX, 83%	2.70	2.45	2.30
Special Crack, 81%	2.60	2.45	2.30
Crack XX, 78%	2.50	2.40	2.25
Extra Extra, 73%	2.45	....	....
Best Extra, 68%	2.40	....	....

Canton filature, new style, 14/16	$1.80
Canton filature, new style, 20/22	1.70
Tussah filature, 8 cocoon	1.05

NATIONAL RAW SILK EXCHANGE

	Close Sept. 9	For the Week High	For the Week Low	Close Sept. 15	Net Ch'ge.
September	2.41	2.41	2.36	2.42	+.01
October	2.39	2.39	2.33	2.40	+.01
November	2.37	2.36	2.32	2.38	+.01
December	2.36	2.36	2.29	2.35	—.01
January	2.36	2.36	2.29	2.36	.....
February	2.36	2.36	2.29	2.36	.....
March	2.36	2.36	2.29	2.36	.....
April	2.36	2.36	2.29	2.35	—.01

Total number of bales, 8,280. Total approximate value, $2,863,224. Trading unit crack XX 13/15 white 78%.

Domestic Rayon

VISCOSE PROCESS

Denier	Filament		First	Second
50	14	.....	$2.15	$1.95
75	18–30	.....	1.35	1.25
100	18–40	.....	1.10	1.00
125	36–50	.....	1.00	.90
150	30	.....	.70	.67
150	24–40	.....	.75	.72
150	60	.....	.85	.82
150	75–90	.....	.85	.82
170	24–27	.....	.75	.72
170	60	.....	.85	.82
200	30	.....	.75	.72
200	35–42	.....	.75	.72
300	42–62	.....	.63	.60
450	54–60	.....	.63	.60
600	72–96	.....	.63	.60
900	100–144	.....	.63	.60

NITRO-CELLULOSE PROCESS

Denier	First Qual.	Second Qual.	Denier	First Qual.	Second Qual.
75	$1.35	$1.25	150	$0.75	$0.72
100	1.05	.95	175	.75	.72
125	.95	85			

CUPRAMMONIUM PROCESS

Denier	Filament	Price	Denier	Filament	Price
15	24	$3.10	65	45	$2.00
25	24	2.85	80	60	1.70
30	24	2.60	100	75	1.35
40	30	2.40	120	90	1.22
52	30	2.20	150	112	1.10
			180	135	.97

ACETATE PROCESS

Denier	Price	Denier	Price
45	$1.60–2.25	120–125	$1.10–1.90
55–60	1.50–2.05	140	1.30
65	2.45	150	1.00–1.40
75	1.40–1.80	200	1.55
100	1.30–1.65	300	1.00–1.50

Rayon Waste

Open bleached waste	$0.13–$0.14
Open unbleached waste	.10½
Bleached thread waste (mfs.)	.09
Bleached thread waste (misc.)	.06– .07
Colored thread waste	.03– .04
Colored clips	.03– .04

CONVERTED RAYON WASTE

Bleached tops	$0.30–0.32½
Unbleached tops	.28– .29
Bleached noils	.11
Unbleached noils	.09½
Bleached garnetts	.12
Unbleached garnetts	.13
Colored garnetts	.10– .11

Silk Waste

Kibizzo Kakai Grand XX	$0.50
Kibizzo Kakai Triple Extra	.44
Frison Grand Double	.49
Pierced Cocoons	.50

▸ Program for S.T.A. Semi-Annual Meeting

Organization and management within the plant will be the theme of the Southern Textile Association's semi-annual meeting, which will be held at the Selwyn Hotel, Charlotte, N. C., Oct. 9 and 10 according to Walter C. Taylor, secretary. The meeting will open with a banquet Friday evening at 7 p.m. following which Julian Miller, editor of the *Charlotte News*, will speak on the subject of cooperation. Saturday morning addresses will be delivered by H. K. Hallett, general manager of Kendall Mills. J. O. Corn, superintendent of Pacific Mills, Columbia, S. C.; and Carl R. Harris, manufacturing engineer, Erwin Cotton Mills Co., Durham, N. C. It was announced also that the date of the Weavers Section meeting, which will be held in Greenville, S. C., has been changed from Nov. 13 to Dec. 4.

▸ Fall Meeting of N. C. Mill Men Set for Nov. 20-21

The regular fall meeting of The Cotton Manufacturers Association of North Carolina will be held at the Carolina Hotel, Pinehurst, N. C., Nov. 20 and 21, according to announcement by Hunter Marshall, Jr., Charlotte, N. C., secretary of the association. It is expected that about 200 manufacturers and others connected with the cotton textile industry will attend the Pinehurst meeting. K. P. Lewis, secretary and treasurer, Erwin Cotton Mills Co., Durham, N. C., is president of the association.

▸ Philadelphia Textile School $400,000 Research Fund

Formal announcement of the creation of the "Albert Mansfield Patterson Memorial Fund," is made by the Board of Directors of the Pennsylvania Museum's School of Industrial Art, Philadelphia of which the Philadelphia Textile School is an important part. This fund which consists of upwards of $400,000 will be devoted to textile technical research by the Philadelphia Textile School. It is derived from funds received as a result of the operations of the Textile Alliance, Inc., at the close of the war. The distribution of these funds was allocated some time ago and referred to in these columns at the time.

▸ American Enka Opens New York Laboratory

A laboratory for analyzing rayon or other yarns and for testing fabrics has been established by the American Enka Corp., at its New York offices, 271 Church st., it is announced by C. M. Carr, vice-president. The laboratory is equipped with the most modern precision testing apparatus; it is in charge of J. A. VanLaer, director of the fabrics development of the company. The services of the laboratory are available to mills, converters, wholesalers and retailers; yarn tests or analyses will be made by appointment.

▸ Silk Market Steadies After Big Gerli Deal

Paulino Gerli, of E. Gerli & Co., Inc., New York, on Wednesday confirmed for TEXTILE WORLD, the reports that his company had taken over a stock of about 25,000 bales of raw silk which had been held by Tomonoshin Yoshimura, of Yokohama and Kobe. The deal is one of the most important private deals in the history of the silk industry and involves about $8,000,000. News of the acquisition had a decidedly healthy effect on the American market, as there had been reports of unloading by Mr. Yoshimura which had depressed both the Japanese and the New York markets.

The stock involved is equivalent to almost 25% of the entire surplus silk stock now under Government bond in Japan.

▸ Fashion Show Displays Bemberg's Fabric Adaptability

The adaptability of Bemberg to an ever-widening range of women's apparel was illustrated Wednesday at a fashion show held by the American Bemberg Corp., at the Theater Moderne, Chanin Building, New York. Nearly two score garments were displayed on models, most being new Paris styles by leading French designers. The range included intimate wear, pajamas, children's clothes, sportswear, daytime and evening frocks, many of which were brought from Paris recently by Mrs. Louise Huston, of the Bemberg company. Black-and-white, pale blue and lavender were the prevailing colors. Bemberg-and-wool fabrics proved particularly striking and excited much interest.

▸ English Jantzen Mill To Supply All Europe

The Brantford, Middlesex, England, plant of Jantzen Knitting Mills, Ltd., will soon be in a position to execute all European orders for Jantzen swim suits, according to Alfred Cormack, director and manager of that plant. Last season 75% of Jantzen's European orders were filled direct from Portland, Ore. As 25% of European sales are in the British Isles, this means the British plant has just been supplying British demands.

▸ Armstrong Mills Office

Armstrong Knitting Mills, West Roxbury, Mass., have taken a large office and showroom in the Empire State Building, New York. This move is a result of the growth of the leather coat department, an official of the company states. L. C. Holman is in charge of the New York office.

▸ N.A.C.M. Program Details Soon

The program for N.A.C.M. annual meeting in Providence, R. I., Oct. 7 and 8, provides for golf on Wednesday afternoon, two business sessions on Thursday ending with the annual banquet that evening. Details will be available within the next 10 days.

▸ N. Y. Chemists to Meet Sept. 25

The New York Section of the American Association of Textile Chemists and Colorists will meet at the Chemists Club on the evening of Sept. 25. Laundry and dry cleaning problems will be discussed by authorities.

▸ Putnam Silk Strike Ends

After a two months' strike, the 850 workers employed in the two Putnam, Conn., mills of the Edward Bloom Silk Co. and M. Salzberg Sons & Co., voted this week to return to work under the same conditions as prevailed before the walk-out. Officials of the Bloom mill said the plant would reopen Monday on a 50% basis.

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Business News

A. S. Thomas to Represent Abbot in South

A. S. Thomas was recently appointed southern representative for the Abbot Machine Co., Wilton, N. H. He is making his headquarters at Greenville, S. C.

Ferrocrete Moves New York Office

The Ferrocrete Cement Co., Inc., announces the removal of its New York offices to 370 Lexington Avenue, corner of East 41st Street.

Mundet Houston Office Moves Into Own Building

L. Mundet & Son, Inc., of Texas, whose business slogan is "Everything Made of Cork," announce that their office at Houston, Texas, has been moved from 2420 Nance St. to the new Mundet building at Commerce & Palmer Streets.

Research on Paperboard Containers at Mellon Institute

Dr. Edward R. Weidlein, Director, Mellon Institute of Industrial Research, Pittsburgh, Pa., has announced that an Industrial Fellowship for research on moistureproofing and greaseproofing paperboards used in cartons and boxes has been established in that institution by the Robert Gair Co., of New York, N. Y. Recent progress in package merchandising has indicated, he pointed out, a growing need for paperboard containers with improved moistureproofing and greaseproofing qualities, and he said that it is the hope of the Robert Gair

Co., the donor of the Fellowship, and of Mellon Institute that technically valuable advances will result from the studies which were begun on Sept. 1. Dr. Marion D. Coulter has been appointed a Fellow of the Institute, to conduct these scientific investigations.

Dr. Karl T. Steik Goes to National Oil Products Co.

Dr. Karl T. Steik, recently of the Standard Oil Development Co., has been appointed research director at the new main laboratories of the National Oil Products Co. at Harrison, N. J.

Dr. Steik did graduate work at the University of Koenigsburg, Germany, and was the recipient of medals in recognition of research work in the chemistry of oils. He holds a master's degree from Harvard University and a doctor's degree from the University of Chicago. Dr. Steik has been associate professor at the University of Wyoming and University of Florida. Leaving his college work he joined the Sun Oil Co. as research chemist and later the Standard Oil of Indiana. Subsequently he became affiliated with the Standard Oil Development Co.

His appointment as research director of the National Oil Products Co.'s laboratories is in keeping with that company's widening research program. The National Oil Products Co. has always maintained a progressive research policy and is in a position to expand its technical cooperation with industry.

E. L. Ryerson, Jr., Takes Active Part in Relief Work

Edward L. Ryerson, Jr., president of Joseph T. Ryerson & Son, Inc., Chicago, has accepted President Hoover's invitation to become one of a committee of 60 leaders in business, economic, and sociological activities to assist Walter S. Gifford, president of the American Telephone & Telegraph Co., in his work as director general of the nation's relief program. Mr. Ryerson, Jr., is also chairman of the Governor's Commission on Unemployment and Relief for the State of Illinois and president of the Joint Emergency Relief Fund of Cook County.

Vorclone Machinery Being Moved to Hoffman Plant at Syracuse

Between 50% and 75% of the machinery and other equipment of the Vorclone Corp., Milwaukee, Wis., acquired by the U. S. Hoffman Machinery Co., Syracuse, N. Y., early in the summer, has been moved to Syracuse and the rest will be there by Oct. 1, according to announcement by A. M. Bennett works manager of the Hoffman concern.

Ludlow Valve Mfg. Manufacture in Canada

The Ludlow Valve Mfg. Co., Troy, New York, makers of Ludlow "Diamond" hydrants, double gate valves, and the Ludlow multi-valves, will manufacture in Canada as the Canadian Ludlow Valve Mfg. Co., Ltd. Offices are located at 930 Wellington Street, Montreal, Que., and factories at Three Rivers, Que., St. Thomas, Ont., and Fort William, Ont.

A Plan to Take Farm Board Out of Cotton Business

A PLAN that would bind the Federal Farm Board to a fixed policy in disposing of 2,000,000 bales of surplus cotton was made public Sept. 11 by Senator Daniel O. Hastings, of Delaware. While not especially endorsing the plan which contemplates creation of a private corporation for marketing all cotton controlled by the Farm Board at a rate of 2,000 bales a day over a period of four years, Senator Hastings commented that it would relieve the cotton market of uncertainty which some believe, has exerted a depressing influence on cotton prices.

The theory of the plan, which was devised by H. O. Schundler, of New York, a big but little known figure in shipping and world trade generally, is that under a contractual relation with a private firm, the Farm Board would be obliged to adhere to a definite program for marketing its cotton that would be advantageous to the whole industry because it would not be susceptible to changes that might be made from time to time in any plant dictated wholly by the board.

The marketing corporation, known as the Cotton Factors Corp., would have a privately subscribed capital of more than $50,000,000 that, according to Senator Hastings, would be forthcoming immediately as Mr. Schundler has the support of important financial interests. The proposed corporation would advance $50,000,000 to the Farm Board immediately. In addition to this initial advance of 5c. a pound on 2,000,000 bales the board would ultimately receive the full price at which the cotton is sold by the corporation. The corporation's profit would be limited to ½c. per pound and it would receive this only if the price of cotton goes to 10½c. or more.

Wool Week Committee to Meet on Sept. 29

Col. Chas. F. H. Johnson, who was appointed temporary chairman of the wool week committee at a meeting held at Washington, Aug. 18, announces the appointment of the following to act as a committee as a whole: Moses Pendleton, general manager, American Woolen Co.; Thurmond Chatham, president, Wool Blanket Manufacturers Association; Leo Del Monte, president, Industrial Council, Cloak & Skirt Manufacturers, Inc.; Col. Chas. F. H. Johnson, president, Botany Worsted Mills; Frederick K. Nixon, agent, Worumbo Co.; Herbert Webb, president, Philadelphia Wool & Textile Association.; J. Byron Wilson, secretary, National Wool Marketing Corp.

Colonel Johnson planned an early meeting of the committee for the purpose of discussing the calling of a general meeting to submit the nomination of a permanent chairman to be proposed by this committee, and also to approve of a general committee representing all of the industry, whose names will be submitted by the temporary chairman to the nominating committee. It is proposed that such general meeting be held on Sept. 29 at the Manhattan Club, New York.

▸ Additional News on Cotton Legislation

In South Carolina, the upper house of the legislature passed the no cotton bill for 1932 on second reading Tuesday. It is expected that strong opposition will be developed in the House of Representatives, however and the bill will not likely pass that body without modification. Any action taken by the South Carolina legislature this week will not be effective unless similar legislation is adopted in Texas. Governor Gardner of North Carolina announced that no special cotton session of the legislature would be called in that State.

▸ Ask Reduction in Duty on Staple Cotton

The Rubber Manufacturers Association, Inc., New York, has filed application with the U. S. Tariff Commission for investigation aimed at decrease of duty on cotton having a staple of 1⅛ in. or more.

▸ N. C. Textile School to Cooperate on Research

The Textile School of North Carolina State College has accepted the invitation of the United States Institute for Textile Research, Inc., to become a participating or cooperating laboratory of the United States Institute.

▸ Boston Wool Receipts

Reports of domestic and foreign wools at Boston, also imports at Philadelphia and New York for the week ended Sept. 12, based upon data compiled by the Department of Agriculture, follow:

	Week Ended Sept. 12	Total to Date 1931	Total to Date 1930
Domestic	11,800,000	233,294,000	222,494,000
Foreign	476,000	31,697,000	48,936,000
Total	12,276,000	264,991,000	271,430,000
IMPORTS AT PRINCIPAL PORTS			
Boston	476,000	31,697,000	48,936,000
Philadelphia	517,000	38,425,000	35,178,000
New York	663,000	36,202,000	31,740,000
Total	1,656,000	106,324,000	115,854,000

What a year to review in Providence!

A year has passed since the last general meeting of the National Association of Cotton Manufacturers. And what a year!

Cotton has touched a 30-year low.

Cotton goods sales ran contrary to the depressed trend in other lines of business.

A national promotional campaign for cotton products captured the imagination of the country.

Advances in merchandising, in equipment, in cost determination, have engaged the attention of manufacturers.

Revolutionary working schedules have gone into effect.

So there will be plently of discussion and stock taking at Providence, October 7 and 8 for Textile World to report and interpret in its issue of October 10. And, by the way, this is fast reporting. The meeting will close the 8th. Textile World will go to press the next day with the complete story and will be in the mail that night.

If you should be unable to go to Providence personally you will at least have a good proxy in Textile World.

Textile World

Note to Advertisers:

There is still time to prepare copy and reserve a position if you wish to capitalize the special reader interest for which Textile World's convention reporting is reputed.